PRODUCT CATALOGUE / 2026

High Performance Insulation.

Delivering High Performance at Lower Cost — across six product families and 58 grades, from −200 °C through +1,800 °C.

67 PAGES · 6 FAMILIES · 58 PRODUCTS

ISO 9001 · ASTM · EN 13501-1

FEATURES & BENEFITS

Engineered to outperform — and to fit your budget.

01 Higher insulation performance across the full thermal range

02 Wide application range: −200 °C to +1,800 °C

03 Thin, lightweight, ready-to-use designs

04 Fire resistant & flame retardant — A / A1 classified

05 Strength range from 0.2 MPa to 85 MPa

06 Low to high density formulations to spec

07 Excellent after-sales engineering support

02 · REFERENCE · PART 1 OF 2

Product Selection Index

58 products across **6** families
Sorted by family · −200 °C to 1,800 °C

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58 products across **6** families
Sorted by family · −200 °C to 1,800 °C

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FAMILY 01 — WEDGEL · AEROGEL INSULATION

Aerogel

Nano-porous silica aerogel blankets, panels, powders, coatings & composites — the lowest thermal conductivity of any known solid, in service from cryogenic −200 °C through 1,200 °C.

TEMPERATURE RANGE	CONDUCTIVITY	PRODUCTS	STANDARDS
−200 → 1,200 °C	**0.013 → 0.069 W/m·K**	**8**	**ASTM C1728**

IN THIS FAMILY

WedGel

Aerogel Insulation — Family Overview

Blankets · panels · powders · coatings · composites — the WedGel range

WedGel aerogel insulation utilises nano-porous silica aerogel to deliver thermal conductivities 2–4× lower than fibreglass or foam. Available as blankets, panels, powders, coatings and composites, it is hydrophobic, fire-resistant and supplied in thicknesses from 1 mm to 50 mm to suit cryogenic, industrial-process, building and EV-battery applications.

RANGE	Λ AT 25 °C	FIRE CLASS
−200 → 1,200 °C	**0.013 – 0.029** W/m·K	**A / A1** Non-combustible

FEATURES & ADVANTAGES

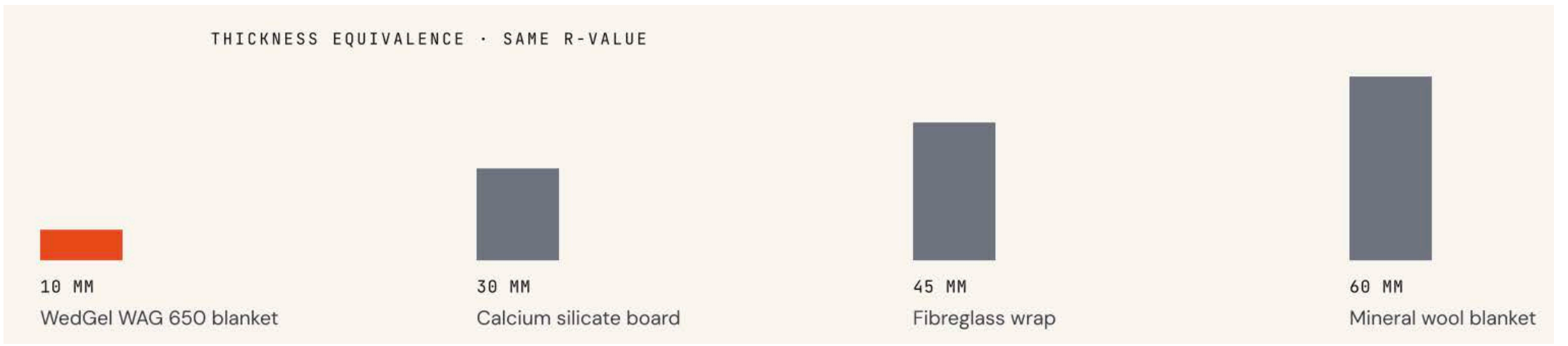
- Lowest thermal conductivity of any commercial insulation
- Hydrophobic ≥ 99 % — moisture resilience under wet plant
- Thin profile reclaims space in dense piping and vessels
- Fire resistant — A / A1 non-combustible classification
- Flexible blanket forms cleanly around small radii
- Service from cryogenic −200 °C to high-temperature 1,200 °C

APPLICATIONS

- Cryogenic LNG / LIN / LOX systems and cold boxes
- Petrochemical, refinery and process-plant insulation
- Building envelopes, façades and acoustic packages
- EV battery cell, module and pack thermal barriers
- Aerospace and shipboard low-temperature pipelines
- Space-constrained retrofits where thickness is the constraint

TECHNICAL PROPERTIES

Property	Value
Form factors	Blanket · Panel · Powder · Coating · Composite
Carrier options	Glass cloth · Aluminium foil · PE · Silica cloth
Standards	ASTM C1728 · C795 · C1617 · E84 · EN 13501-1



WedGel · 125–200

Cold & Cryogenic Aerogel Insulation

ASTM C1728 Type 1, Grade 1B · seven grades — 125A · 125LD · 125B · 150AL · 200 · 200HP · VIP

WedGel cold and cryogenic blankets and VIP panels combine silica aerogel with reinforcing carriers to deliver the lowest thermal conductivity in the industry across the full cryogenic range. Service from −200 °C to +200 °C, hydrophobic to 99 %+, with verified ASTM C795 stress-corrosion and C1617 corrosiveness pass. The seven grades let specifiers tune for density, thickness, and short-term temperature excursion without changing system geometry.

SERVICE TEMPERATURE	Λ AT 25 °C	FIRE CLASSIFICATION
−200 → +200 °C	**0.005 – 0.023** W/m·K	**Class A** FSI ≤ 25 · SDI ≤ 50

FEATURES & ADVANTAGES

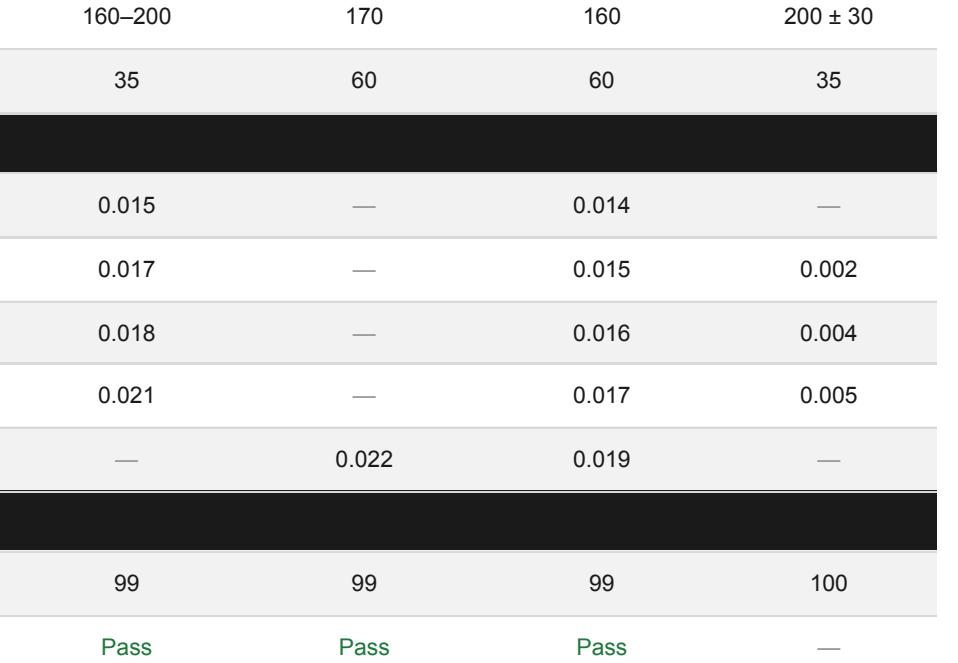
- Lowest thermal conductivity of any insulation in cryogenic service
- Hydrophobic ≥ 99 % — performance holds in wet & humid plant
- Thin profile reclaims space on dense piping & vessel insulation
- Flexible blanket forms cleanly around small-radius fittings
- Pass ASTM C795 stress-corrosion; < 5 ppm Cl on steel
- VIP grade delivers conductivity down to 0.002 W/m·K

APPLICATIONS

- LNG, LPG, LIN/LOX, ethylene & ammonia cryogenic systems
- Cold boxes, vessels, piping and valve insulation
- Chilled-water and brine refrigeration distribution
- Aerospace and shipboard low-temperature pipelines
- Building cold-bridge mitigation and acoustic envelopes
- Space-constrained retrofits where thickness is the constraint

TECHNICAL PROPERTIES · 7 GRADES

Property	125A	125LD	125B	150AL	200	200HP	VIP
Service temperature °C	−200/+125	−200/+125	−180/+125	−195/+150	−200/+200	−200/+200	−100/+80
Colour	White	White	Grey	White	Grey	White	Silver
Thickness mm	10	8–25	5–20	5–20	10–20	5, 10	20–50
Short-term temp. resistance °C	1,000	300	650	1,200	400	1,000	1,000
Density kg/m³	160 ± 30	70	185	160–200	170	160	200 ± 30
Compression strength @ 10 % kPa	60	—	60	35	60	60	35
THERMAL CONDUCTIVITY (W/M·K)							
at −129 °C	0.014	0.013	0.015	0.015	—	0.014	—
at −73 °C	0.016	—	0.018	0.017	—	0.015	0.002
at −17 °C	0.017	0.019	0.020	0.018	—	0.016	0.004
at 24 °C	0.018	0.023	0.021	0.021	—	0.017	0.005
at 100 °C	0.021	0.032	0.023	—	0.022	0.019	—
SAFETY & COMPLIANCE							
Hydrophobicity %	99	99	99	99	99	99	100
Stress corrosion ASTM C795	Pass	Pass	Pass	Pass	Pass	Pass	—
Corrosiveness of steel ppm Cl	<5	<5	<5	<5	<5	<5	—
Flame spread ASTM E84 FSI	≤ 25	≤ 25	≤ 25	≤ 25	≤ 25	≤ 25	—
Fire classification	A	A	A	A	A	A	—



WedGel · WAG / ECO

High-Temperature Aerogel Insulation

ASTM C1728 Type III, Grade 1A · four grades — WAG 400 · WAG 650 · 650HP · ECO

WedGel high-temperature blankets combine silica aerogel with refractory carrier matrices for continuous service to 650 °C and short-term excursions to 1,400 °C. All grades are non-combustible, hydrophobic, ROHS-compliant and pass ASTM C795 stress-corrosion. Available with aluminium foil, PE or silica-cloth coverings.

SERVICE TEMPERATURE	Λ AT 200 °C	FIRE CLASSIFICATION
−50 ⟶ 650 °C	**0.026 – 0.049** W/m·K	**Class A1** Non-combustible

FEATURES & ADVANTAGES

- Service to 650 °C with short-term to 1,400 °C
- Hydrophobic ≥ 99 % — wet and humid plant tolerant
- Flexible blanket — small-radius fittings without crushing
- FSI ≤ 5, SDI ≤ 10 — among the lowest in the industry
- Multiple covering options — aluminium foil, PE, silica cloth
- ROHS compliant; pass ASTM C795 and C1617

APPLICATIONS

- Process piping in refining, petrochemical and chemical plant
- Steam piping, exhaust manifolds and turbine cladding
- Pressure vessels, reactors and heat exchangers
- High-temperature ducting and combustion equipment
- Personnel-protection wrap on hot surfaces
- Industrial furnace and kiln backup insulation

TECHNICAL PROPERTIES · 4 GRADES

Property	WAG 400	WAG 650	650HP	ECO
Service temperature °C	−50 / +400	−50 / +650	−10 / +650	+650
Colour	White / Grey	Light Brown / White	Grey	Light Grey
Thickness mm	3–20	3–50	5–20	5–20
Short-term temp. resistance °C	1,000	1,400	1,400	1,200
Density kg/m³	180	200 ± 40	200	170 ± 20
Compression strength @ 10 % kPa	60	80	35	20
THERMAL CONDUCTIVITY (W/M·K)				
at 25 °C	0.018	0.018	—	0.029
at 100 °C	0.023	0.023	0.024	0.039
at 200 °C	0.026	0.028	0.028	0.049
at 300 °C	0.035	0.035	0.033	0.061
at 400 °C	—	0.047	0.040	—
at 500 °C	—	0.058	0.049	—
at 600 °C	—	0.068	0.062	—
SAFETY & COMPLIANCE				
Hydrophobicity %	99	99	99	99
Flexibility ASTM C1101	Flexible	Flexible	Flexible	Flexible
Fire classification	A1	A1	A1	A
Linear shrinkage 24 h %	< 2	< 2	< 2	< 2

WedGel · BL20 / BL50

Aerogel Insulation for Home & Buildings

Two grades — BL20 for building cold insulation, BL50 for heat & fire insulation

WedGel BL20 and BL50 are aerogel blankets tuned for the building envelope. BL20 handles cold-side insulation from −170 °C to 100 °C; BL50 covers warm and fire-rated work from 25 °C to 1,200 °C. Both are hydrophobic, non-combustible, A / A1 classified and ROHS-compliant — appropriate for façades, roofs, partitions and refurbishment.

SERVICE RANGE	Λ AT 25 °C	FIRE CLASSIFICATION
−170 → +1,200 °C	**0.021** W/m·K (both grades)	**A1 / A** Non-combustible

FEATURES & ADVANTAGES

- Two grades cover both cold-side and fire-side building applications
- Hydrophobic 99 % — performance retained in damp envelopes
- Thin profile — high R per millimetre of wall depth
- Non-combustible A1 (BL20) / Class A (BL50)
- Pass ASTM C692 stress-corrosion cracking
- Flexible blanket — easy to cut, friction-fit between studs

APPLICATIONS

- External wall and façade insulation
- Roof and floor thermal upgrades
- Cold-side insulation in chilled-water and refrigeration plants
- Heat-side and fire-resistant partitions
- Acoustic and thermal lining in renovations
- Cold-bridge mitigation around windows and balconies

TECHNICAL PROPERTIES · 2 GRADES

Property	BL20	BL50
Application	Building cold insulation	Building heat & fire insulation
Service temperature °C	−170 / +100	+25 / +1,200
Colour	Grey / White	White
Thickness mm	5, 10, 25, 50	10, 20, 25, 30, 50
Short-term temp. resistance °C	1,000	1,400
Density kg/m³	150	180
Compression strength @ 10 % kPa	80	37
THERMAL CONDUCTIVITY (W/M·K)		
at 25 °C	0.021	0.021
at 100 °C	0.023	0.024
at 200 °C	—	0.029
at 300 °C	—	0.036
SAFETY & COMPLIANCE		
Hydrophobicity %	99	99
Stress corrosion ASTM C692	Pass	Pass
Flame spread ASTM E84 FSI	≤ 25	≤ 25
Fire classification	A1	A
Water absorption %	< 5	< 5

WedGel · CAC350

Carbon Aerogel Composite

Single grade — carbon-fibre reinforced SiO_2 aerogel composite for EV batteries & fire protection

WedGel CAC350 is a flexible carbon-fibre reinforced silica aerogel composite, manufactured by an innovative nano-composite process from oxidised polyacrylonitrile (PAN) felts and SiO_2 aerogel. Ultra-low conductivity, excellent hydrophobicity, flame-resistant and easy to cut — ideal for EV battery thermal-runaway barriers, welding drapes and arc-resistant apparel.

SERVICE TEMPERATURE	Λ AT 25 °C	FIRE PERFORMANCE
350 °C continuous	**0.021** W/m·K	**UL94 V-0** + short-term 1,200 °C

FEATURES & ADVANTAGES

- Flexible composite — easy to cut, form and apply
- Ultra-low thermal conductivity 0.021 W/m·K at 25 °C
- UL94 V-0 flame retardant, halogen-free
- Hydrophobic > 93 %, ROHS compliant
- Insulation resistance ≥ 500 MΩ @ 2,500 V DC
- Flashover withstand 3,820 V DC without breakdown

APPLICATIONS

- EV battery cell-to-cell and module-to-module fire barriers
- Automotive noise, heat and vibration liners
- Welding drapes and heat-insulating blankets
- Flame and electric-arc resistant apparel
- Cold-chain and refrigerated transport insulation
- Phase-change-material thermal protection systems

TECHNICAL PROPERTIES

Property	Value
Type	Roll · Sheet
Service temperature °C	350
Short-term temp. resistance °C	1,200
Colour	Black
Thickness mm	1–25
Density kg/m³	150–210
Compression strength MPa	1.75
THERMAL CONDUCTIVITY (W/M·K)	
at 25 °C	0.021
at 100 °C	0.023
at 200 °C	0.028
at 300 °C	0.035
at 350 °C	< 0.04
ELECTRICAL & COMPLIANCE	
Hydrophobicity %	> 93
Flammability UL94	V-0
Halogen content	None
Insulation resistance @ 2,500 V DC, 60 s MΩ	≥ 500

WedGel · Powder

Aerogel Powder & Granules

Five grades — silica aerogel granules for coatings, slurries, fillers & composites

WedGel aerogel powders are nano-porous silica granules with conductivity below 0.018 W/m·K and porosity up to 95 %. Hydrophobic, lightweight and fine-particle, they are easily dispersed into paints, coatings, slurries and composite matrices to deliver thermal-insulation, fire-resistance and acoustic-damping properties.

λ AT 25 °C	POROSITY	SURFACE AREA
0.016 – 0.023 W/m·K	**80 – 98** %	**300 – 800** m²/g

FEATURES & ADVANTAGES

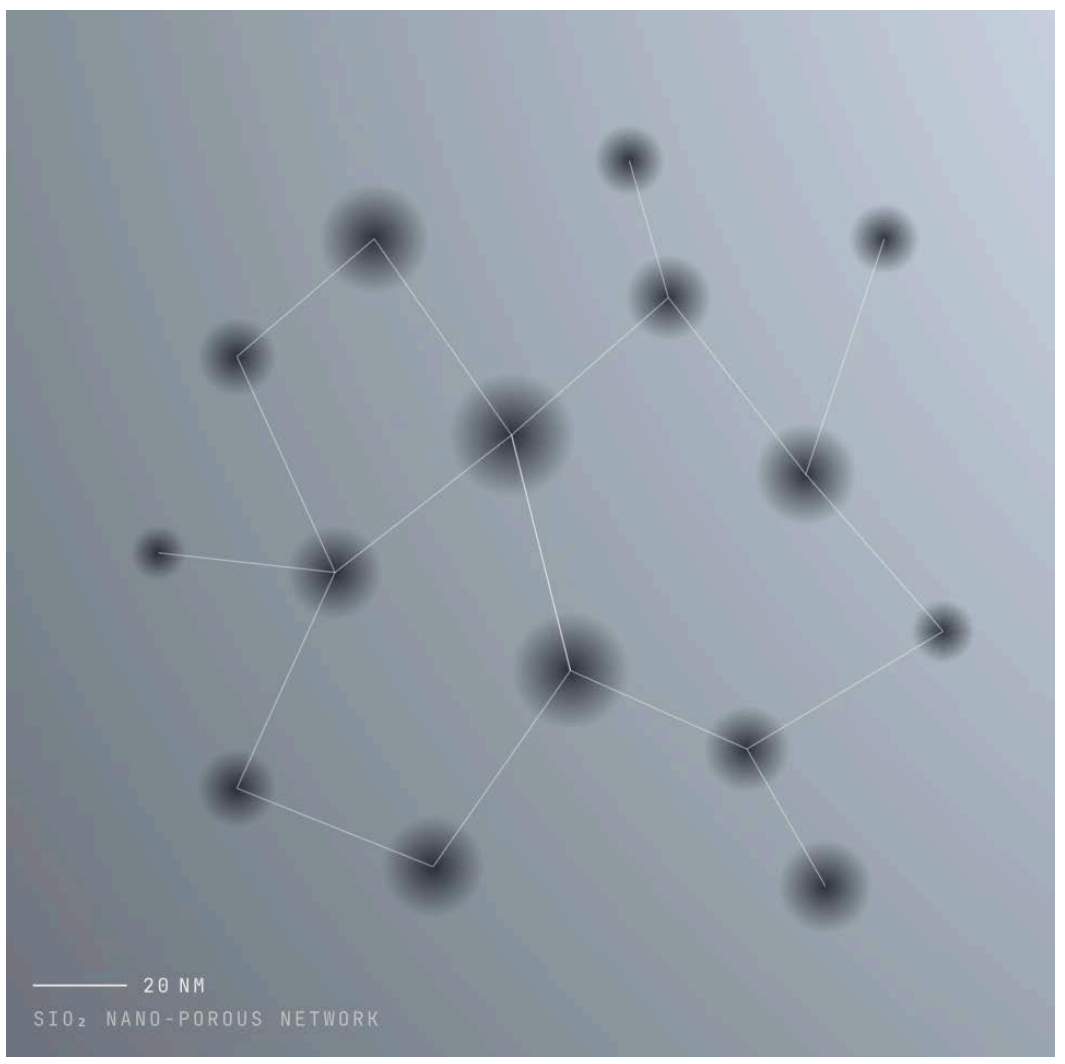
- Conductivity < 0.018 W/m·K — lower than still air
- Porosity up to 95 % — ultra-low density carrier filler
- Highly processable into liquid and solid matrices
- Hydrophobic; water-repellence rate ≥ 90 %
- Inorganic, non-toxic and environmentally safe
- Available in 1 µm to 6 mm grades

APPLICATIONS

- Insulation coatings and water-based aerogel slurries
- Polyester slice and functional polyester film fillers
- Insulation foam sheet filler
- Purification and adsorption packing
- Fire-resistance enhancement of gypsum boards
- Thermal-insulation augmentation of composite materials

TECHNICAL PROPERTIES · 5 GRADES

Property	WAP20	WAP60	FSMP1000	WAPM19	AG Bead
Colour	White	White	Grey	White	White
λ at 25 °C W/m·K	0.016–0.018	0.019	0.023	0.019	0.016–0.019
Specific surface area m²/g	600–800	360	350–450	600–800	300–500
Bulk density kg/m³	20–100	60	220	60	100–200
Particle size	15–50 µm	11 µm	2–20 µm	2–20 µm	1–6 mm
Pore diameter nm	20–50	30	20–40	20–40	20–25
Porosity %	90–95	95	90–98	90–98	80
Surface	Hydrophobic	Hydrophobic	—	Hydrophobic	Hydrophobic



WedGel · WJ120 / WJ400

Aerogel Coatings, Spray, Paint & Paste

Two grades — WJ120 building paint, WJ400 industrial paint

WedGel WJ120 and WJ400 are water-based aerogel coatings applied by brush, spray, scrape or trowel. WJ120 is a building-grade insulation paint for service to 120 °C; WJ400 is an industrial-grade coating for hot surfaces and process equipment to 400 °C. Both are fire-retardant Class A / A2 and free of volatile organics.

SERVICE RANGE	Λ AT 25 °C	FIRE REACTION
−40 → +400 °C	**0.038** W/m·K (both grades)	**A2 / A** Water-based, VOC-free

FEATURES & ADVANTAGES

- Water-based — no volatile organic content
- Apply by brush, spray, scrape, batch or smear
- Curing 30 min at 50–85 °C / 3 hrs at NTP per 0.5 mm
- Decorative finish — pigment compatible
- Fire and flame retardant, Class A combustion
- Service life up to 10 years on building substrates

APPLICATIONS

- Insulation coating on hot pipes, vessels and ducts
- Building façades, roofs and partition walls
- Industrial process equipment exterior insulation
- Personnel-protection coating on high-temperature surfaces
- Cold-side condensation control on chilled lines
- Acoustic damping in combination with water-proof topcoats

TECHNICAL PROPERTIES · 2 GRADES

Property	WJ120	WJ400
Application	Building paint	Industrial paint
Colour	White	White / Grey
Application temperature °C	−40 / +120	−40 / +400
λ at 25 °C W/m·K	0.038	0.038
Solid content %	32–35	32–35
WFT per coat (max) µm	500	500
DFT per coat (max) µm	175	175
CURING & PERFORMANCE		
Cure @ 50–85 °C	30 min / 0.5 mm	30 min / 0.5 mm
Cure @ NTP (20–30 °C)	3 h / 0.5 mm WFT	3 h / 0.5 mm WFT
Dry density kg/m³	280–320	380–450
Dry SiO_2 content %	90–92	90–92
Fire reaction	A2	A
Coverage kg/m²	0.7–1.5	8–10 (10 mm)
Shelf life months	6	6



WedGel · EV

Aerogel Insulation for EV Batteries

Four grades — 650EV · AISi 250EV · FSMP 1000EV · OXF — battery cell, module & pack barriers

WedGel EV thermal barriers are lightweight, ultra-thin, thermally- and electrically-insulating, flame-retardant pads designed to prevent cell-to-cell thermal runaway in lithium-ion battery packs. Four grades trade off flexibility, temperature ceiling and electrical strength — from 650EV high-conductivity aerogel to AISi 250EV high-flex composite. All pass UL94 V-0 and ISO 1182 / EN 13501-1 Class A1.

SERVICE RANGE	Λ AT 25 °C	FIRE PERFORMANCE
−50 ⟶ +1,300 °C across grades	**0.018 – 0.04** W/m·K	**A1 · V-0** Short-term ≥ 1,200 °C

FEATURES & ADVANTAGES

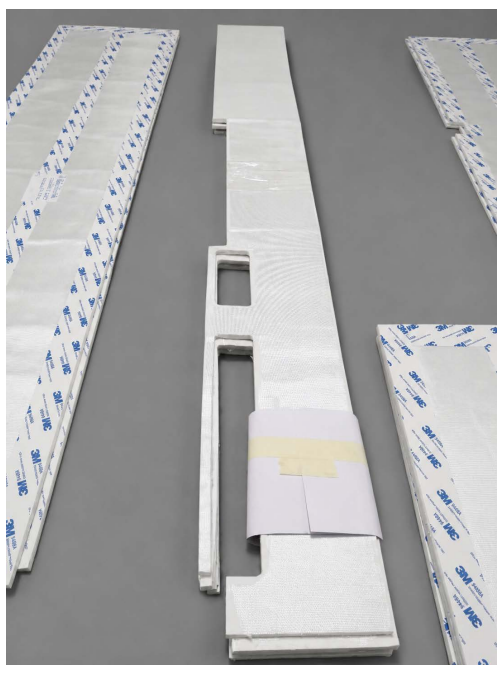
- Lowest λ among insulation pads — 0.018 W/m·K at 25 °C
- Prevents cell-to-cell thermal runaway propagation
- Lightweight — minimal impact on pack energy density
- Self-adhesive options — ≥ 50 N/100 mm peel strength
- Breakdown voltage ≥ 10 kV/mm; volume resistivity ≥ 10^{13} Ω·cm
- Conforms to cell contours; cuts cleanly with shears

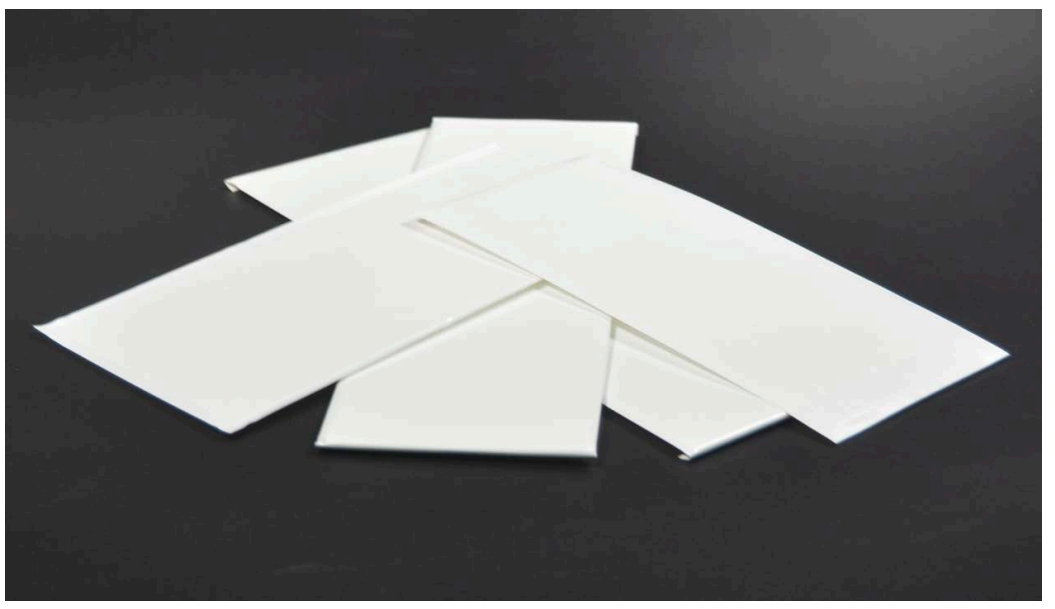
APPLICATIONS

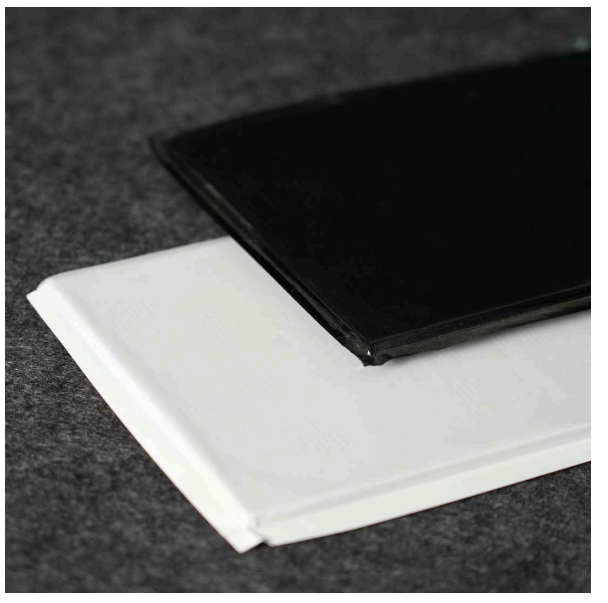
- Cell-to-cell wrap inside lithium-ion modules
- Module-to-module barriers inside battery packs
- Top-of-pack heat shields under upper covers
- Gap fillers between cells and structural ribs
- BMS and busbar thermal isolation
- Phase-change-material substrate carrier

TECHNICAL PROPERTIES · 4 GRADES

Property	650EV	AISi 250EV	FSMP 1000EV	OXF
Aerogel / SiO_2 content %	≥ 90	> 50	> 75	≥ 90
Service temperature °C	−50 / +700	−10 / +1,300	+6 / +1,000	−50 / +700
Short-term temperature °C	1,400	≥ 1,500	≥ 1,400	1,400
Thickness mm	0.24–10	0.8–10	2–10	0.3–10
Density kg/m³	210 ± 42	240–300	260–320	210 ± 42
Flexibility	Low–Medium	High	Low	Very High
THERMAL CONDUCTIVITY (W/M·K)				
at 25 °C	0.018	0.04	0.021	0.023
at 100 °C	0.023	0.05	0.022	0.028
at 200 °C	0.028	0.06	0.023	0.031
at 400 °C	0.047	0.08	0.024	0.047
ELECTRICAL & COMPLIANCE				
Breakdown voltage kV/mm	≥ 10	2–8	≥ 10	≥ 10
Tensile strength MPa	≥ 1.0	1.0	≥ 1.0	≥ 1.0
Compression strength kPa	85 @10%	35 @10%	330	38 @10%
UL94 flame retardant	Pass	Pass	Pass	Pass
Fire reaction EN 13501-1	A1	A1	A1	A1







FAMILY 02 — CALCIUM SILICATE

Calcium Silicate Boards

Lightweight to high-density Calcium Silicate boards manufactured by Filter Press & Gel Tank technology — high-strength backup insulation for steel, glass, cement and aluminium processing.

TEMPERATURE RANGE	CONDUCTIVITY	PRODUCTS	STANDARDS
350 → 1,200 °C	**0.15 → 0.56 W/m·K**	**9**	**Asbestos-free**

IN THIS FAMILY

WETON · 23–32

Insulation Refractory Bricks

Five grades — WETON 23, 26, 28, 30, 32 — lightweight refractory insulation bricks

WETON lightweight refractory insulation bricks deliver high-temperature insulation to 1,760 °C without compromising mechanical strength. Produced from high-purity raw materials, they combine low thermal conductivity, low bulk density, high thermal-shock resistance and reduced shrinkage for use in furnaces, kilns and combustion chambers.

CLASSIFICATION RANGE	Λ @ 1,000 °C	CRUSHING STRENGTH
1,260 – 1,760 °C	**0.24 – 0.53** W/m·K	**1.2 – 3.4** MPa

FEATURES & ADVANTAGES

- Low thermal conductivity at very high temperatures
- Low bulk density — low heat-storage, fast response
- Good high-temperature resistance and creep stability
- Reduced thermal shrinkage on first heat cycle
- High thermal-shock resistance
- High mechanical resistance — handles transport and install

APPLICATIONS

- Insulating layer in torpedo ladles
- Chamber, bogie-hearth and tunnel kilns
- Anode baking furnaces
- Cracker and process plant linings
- Combustion-chamber and reheating furnace lining
- Glass tank, walking-beam and rapid-roller kilns

TECHNICAL PROPERTIES · 5 GRADES

Property	WETON 23	WETON 26	WETON 28	WETON 30	WETON 32
Type	Soft	Hard	Hard	Hard	Hard
Colour	White	White	White	White	White
Classification temperature °C	1,260	1,430	1,540	1,650	1,760
Bulk density kg/m³	600	800	890	1,030	1,250
Flexural strength MPa	0.9	1.5	1.6	1.7	2.0
Cold crushing strength MPa	1.2	2.4	2.6	2.8	3.4
THERMAL CONDUCTIVITY (W/M·K)					
at 400 °C	0.17	0.24	0.30	0.40	0.49
at 600 °C	0.18	0.27	0.32	0.42	0.50
at 800 °C	0.21	0.29	0.35	0.44	0.51
at 1,000 °C	0.24	0.32	0.38	0.45	0.53
at 1,200 °C	—	0.35	0.39	0.47	0.55
CHEMICAL ANALYSIS (%)					
Al_2O_3	45	55	65	72	76
SiO_2	50	43	33	26	22
Fe_2O_3	0.7	0.6	0.3	0.3	0.3

W-LD · 650 – 1100

Low Density Calcium Silicate Boards

Four grades — 650 · 900 · 1000 · 1100 — Filter Press & Gel Tank technology

Wedge low- and medium-density Calcium Silicate Boards are produced by Filter Press & Gel Tank technology to combine low density and high mechanical strength with full machinability. The four grades cover service temperatures from 650 °C through 1,100 °C and are most often specified as backup insulation for steel, ceramic, glass, cement, chemical and petrochemical processing equipment. All grades are asbestos-free, resistant to H_2, CO, CH_4, NH_3 and N_2 atmospheres, and supplied as boards or machined ready-to-use shapes.

SERVICE TEMPERATURE	Λ AT 400 °C	FIRE CLASSIFICATION
650 – 1,100 °C	**0.095 – 0.105** W/m·K	**Class A1** Non-combustible

FEATURES & ADVANTAGES

- Low thermal conductivity across full service range
- Resistant to H_2, CO, CH_4, NH_3, N_2 atmospheres
- Low density & lightweight — easy to handle on site
- High thermal resistance and dimensional stability
- High mechanical and flexural strength
- Vibration resistant; moisture & chemical resistant
- Low heat storage — fast response to thermal cycling

APPLICATIONS

- High temperature insulation & heat protection
- Steel: smelting, heat distortion & heat treatment plants
- Ceramic: chamber and tunnel furnaces
- Glass: melting furnaces & cooling channels
- Cement: heat exchangers & cyclone separators
- Chemical / petrochemical: thermal cracking, reactors & processing plants

TECHNICAL PROPERTIES · 4 GRADES

Property	W-LD 650	W-LD 900	W-LD 1000	W-LD 1100
Colour	White	White	White	White
Service temperature °C	650	900	1,000	1,100
Bulk density kg/m³	220–240	245	255	255
Open porosity %	90	90	90	90
Cold compressive strength MPa	0.75	1.5	1.6	1.6
Flexural strength MPa	0.35	0.5	0.5	0.5
Linear shrinkage @ service %	1.8	0.9	1.0	1.0
THERMAL CONDUCTIVITY (W/M·K)				
at 200 °C	0.062	0.075	0.075	0.075
at 400 °C	0.095	0.105	0.105	0.105
at 600 °C	—	0.145	0.145	0.145
at 800 °C	—	0.175	0.175	0.185
Specific heat @ 400 °C kJ/kg·K	—	1.03	1.03	1.05

HD · 150–T1000

High Density Calcium Silicate Boards

Five grades — HD L23 · HD150 · HD280 · HDT1000 · HD850 — high compressive strength

Wedge high-density Calcium Silicate Boards combine very high compressive strength (up to 85 MPa) with high-temperature insulation and excellent machinability. Specified for hot-tank support bases, load-bearing pipe columns, die-casting platen insulation and induction-furnace structural parts. All grades are asbestos-free, dust-free, with high electrical strength and arc resistance.

SERVICE TEMPERATURE
350 – 1,000 °C

COMPRESSIVE STRENGTH
15 – 85 MPa

FIRE CLASSIFICATION
Class A1 Asbestos-free, non-combustible

FEATURES & ADVANTAGES

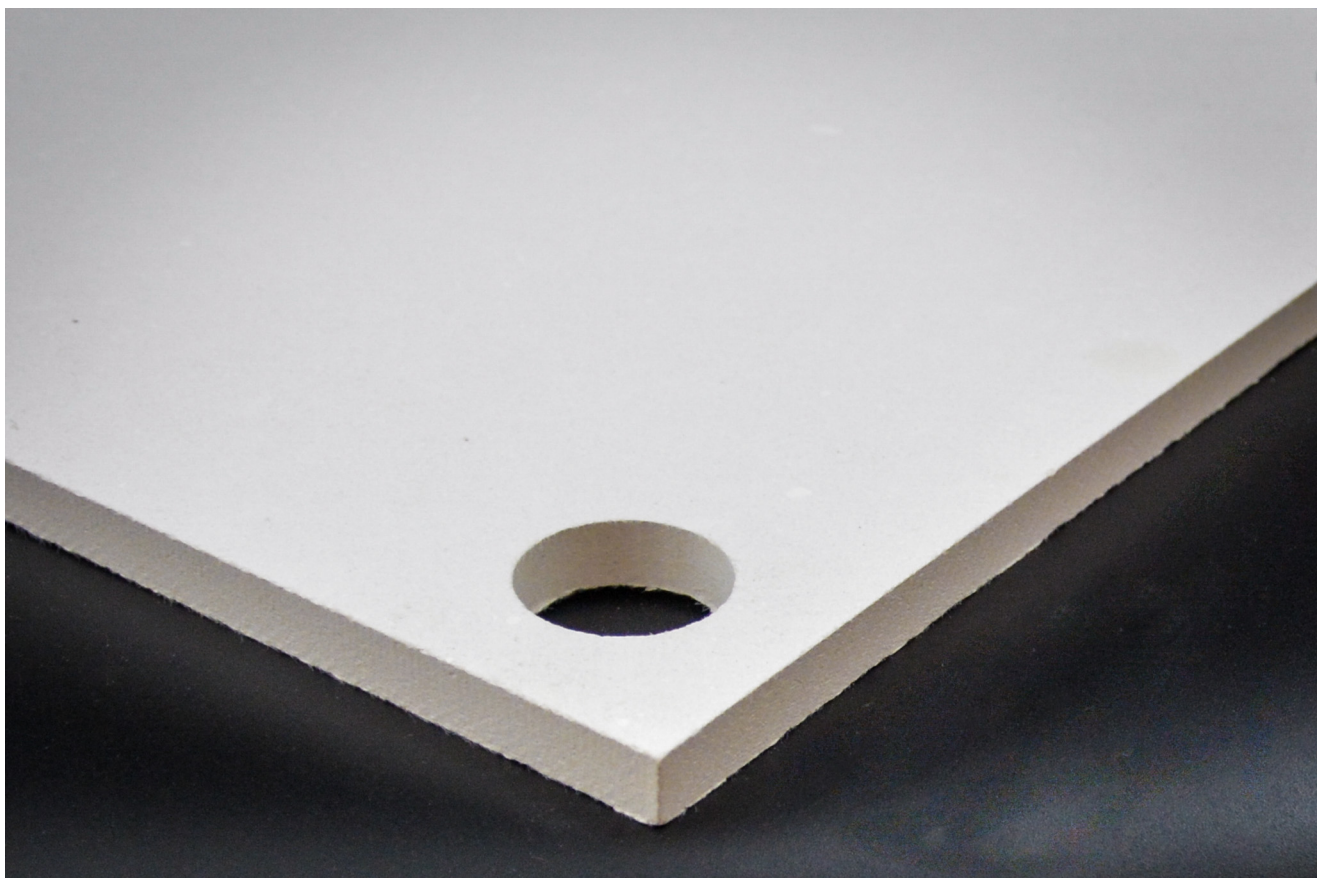
- Up to 85 MPa compressive strength — true load-bearing insulation
- Excellent machinability to close tolerances
- Dust-free surface; asbestos-free
- High electrical strength and arc resistance
- Resistant to moisture and chemicals
- High mechanical strength under cyclic load

APPLICATIONS

- Heat protection and load-bearing pipe columns
- Dryer, ventilation and air-conditioning structural insulation
- Furnace construction and induction-furnace structural parts
- Machine and apparatus construction precision parts
- Platen-press and oven/drier wall cladding
- Heat shields, thermal breaks and furnace bottoms

TECHNICAL PROPERTIES · 5 GRADES

Property	HD L23	HD150	HD280	HDT1000	HD850
Colour	White	White	White	White	White
Classification temperature °C	350	900	1,000	1,000	1,000
Bulk density kg/m³	1,800	750	950	1,400	900
Cold compressive strength MPa	85	15	28	55	18
Bending strength MPa	32	7	10	16	8
Hardness Shore D	55	—	—	—	—
Shrinkage @ CT 12 h %	0.5	0.4	0.4	0.25	0.20
THERMAL CONDUCTIVITY (W/M·K)					
at 200 °C	0.5	0.16	0.28	0.56	0.20
at 400 °C	—	0.19	0.30	0.54	0.22
at 600 °C	—	0.20	0.31	0.52	0.24
at 800 °C	—	0.22	0.32	0.49	0.28



HD · 900–C45

High Density CaSi for Molten Aluminium

Five grades — HD900 · HD1000 · Z140 · M-1000 · C45 — non-wetting, machinable

Wedge high-density Calcium Silicate Boards specified for direct contact with molten aluminium — transfer ladles, casting and holding launders, spouts, floats and hot-top ring headers. Low thermal conductivity and low heat capacity transfer aluminium with minimal temperature drop; excellent machinability allows variety of geometries.

SERVICE TEMPERATURE	BULK DENSITY	BENDING STRENGTH
1,000 °C all grades	**800 – 1,000** kg/m³	**7 – 12** MPa

FEATURES & ADVANTAGES

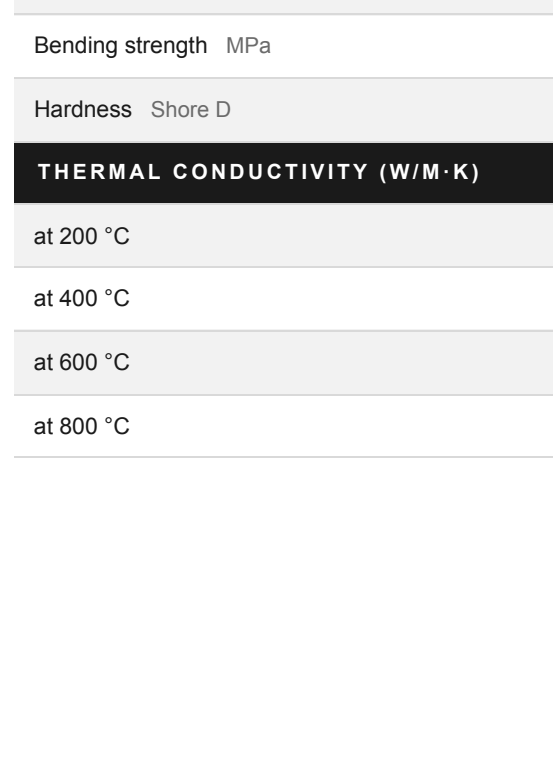
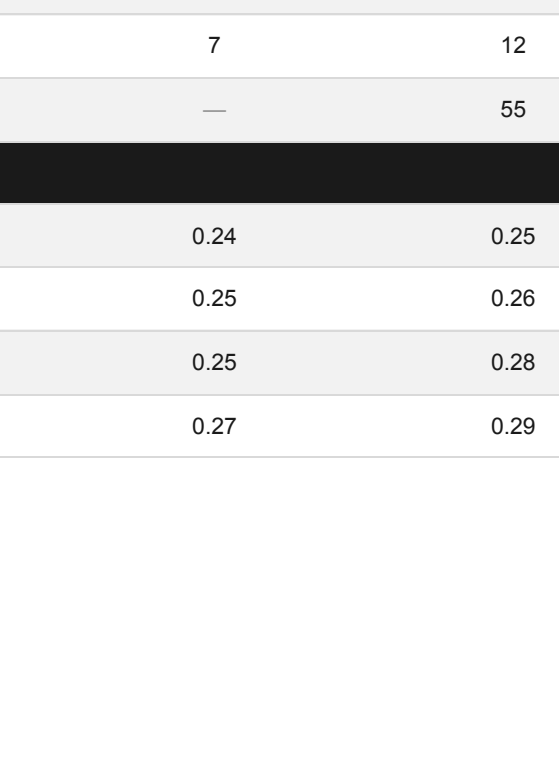
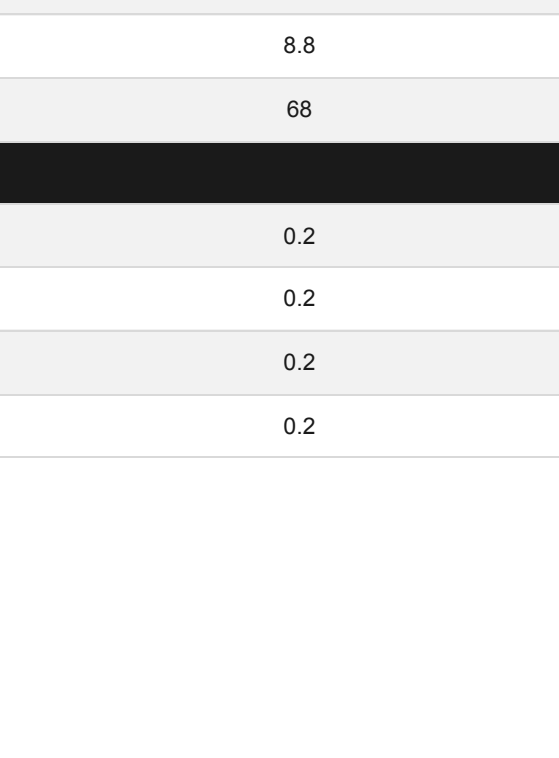
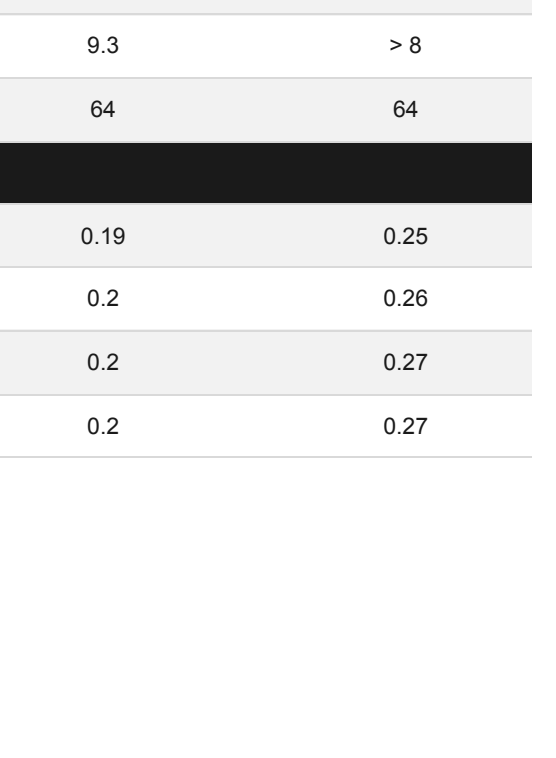
- Non-wetting to molten aluminium — zero metal stickage
- Low heat capacity — minimal temperature drop in transfer
- Excellent machinability for floats, spouts, hot-top rings
- Energy savings in holding-furnace linings
- Low oil absorption; low out-gassing in metal contact
- Asbestos-free, dust-free surface

APPLICATIONS

- Molten aluminium transfer & holding launders
- Float, spout and stopper-pin geometry
- Hot-top ring headers and float plates
- Holding furnace working lining for low-energy die cast
- Tundish gates and bushing rings
- Casting machine transition plates

TECHNICAL PROPERTIES · 5 GRADES

Property	HD900	HD1000	Z140	M-1000	C45
Colour	White	White	White	White	White
Classification temperature °C	1,000	1,000	1,000	1,000	1,000
Bulk density kg/m³	860	1,000	840	800	1,000
Cold compressive strength MPa	19	28	1% @2.3	1% @2.7	> 30
Bending strength MPa	7	12	8.8	9.3	> 8
Hardness Shore D	—	55	68	64	64
THERMAL CONDUCTIVITY (W/M·K)					
at 200 °C	0.24	0.25	0.2	0.19	0.25
at 400 °C	0.25	0.26	0.2	0.2	0.26
at 600 °C	0.25	0.28	0.2	0.2	0.27
at 800 °C	0.27	0.29	0.2	0.2	0.27

CMA · C18 · CCG4 · WL100

Graphite Reinforced CaSi Boards

Four grades — W-CMA · W-C18 · W-CCG4 · WL-101 — graphite + CaSi composite

Wedge graphite-reinforced boards combine graphite's mechanical properties with calcium silicate's thermal stability to deliver very high load-carrying capacity, very low shrinkage and low out-gassing in molten-metal contact. After contact with aluminium there is almost zero stickage and reduced oxide transport into the cast.

CLASSIFICATION TEMP.	COMPRESSIVE STRENGTH	GRAPHITE CONTENT
850 – 1,000 °C	**16 – 24** MPa	**4 – 8** %

FEATURES & ADVANTAGES

- Very low shrinkage on first heat cycle
- Less oil absorption than standard CaSi
- Less out-gassing in molten-metal contact
- High non-wetting to molten metal
- Excellent machinability — improved toughness
- Reduced oxide transport into the cast part

APPLICATIONS

- Transfer & transport launders and ladles
- Bushings and hot-top rings
- Transition plates, tips, snouts, filter boxes
- Head boxes, headers, floats and spouts
- Tundish refractory components
- Casting-machine wear-contact parts

TECHNICAL PROPERTIES · 4 GRADES

Property	W-CMA	W-C18	W-CCG4	WL-101
Classification temperature °C	1,000	850	1,000	1,000
Bulk density kg/m³	1,040	816–818	1,100–1,150	800
Cold compressive strength MPa	17	16	22–24	1% @2.7
Bending strength MPa	9.5	8	10–11	9.3
Hardness Shore D	—	60	65–70	64
THERMAL CONDUCTIVITY (W/M·K)				
at 200 °C	0.2	0.2	—	0.19
at 400 °C	0.2	0.2	0.64–1.2	0.2
at 600 °C	0.21	0.21	0.52–0.92	0.2
at 800 °C	0.22	0.22	0.37–0.62	0.2
COMPOSITION				
Calcium silicate %	82–85	82–85	90–95	82–85
Graphite %	4–8	4–8	—	4–8

HSI · 1200

Wollastonite Calcium Silicate Boards

Single grade — refractory mineral fibres + CaSi bonded with high-temperature clays

HSI 1200 are Calcium-Silicate based Refractory Insulation Boards made of high-quality refractory mineral fibres and calcium silicate bonded with high-temperature clays. They combine compressive strength, high-temperature electrical resistance and excellent fire resistance — for furnace backup insulation, high-temperature gasketing and electrical seals.

CLASSIFICATION TEMP.	Λ @ 600 °C	COMPRESSIVE STRENGTH
1,200 °C	0.17 W/m·K	8 – 10 MPa

FEATURES & ADVANTAGES

- Very strong boards with high compressive strength
- High-temperature resistance up to 1,200 °C
- Low thermal conductivity at high temperatures
- High electrical resistance at elevated temperature
- High fire resistance and heat-shield properties
- Easy to cut, punch and machine; pipe sections available

APPLICATIONS

- Ladle & tundish insulation
- Lime kiln and cement kiln insulation
- High-temperature gaskets, seals and washers
- Boiler, furnace, dryer and oven insulation
- Oil & gas burner insulation
- Pipe & duct insulation; metal-clad gasket fillers
- Stainless-steel plant rollers; fire-resistant doors and safes

TECHNICAL PROPERTIES

Property	Value
Base materials	Calcium Silicate + Refractory Fibre
Classification temperature °C	1,200
Density kg/m³	1,000
THERMAL CONDUCTIVITY (W/M·K)	
at 400 °C	0.15
at 600 °C	0.17
at 800 °C	0.18
MECHANICAL & OTHER	
Tensile strength MPa	5
Flexural strength MPa	6
Shrinkage @ 1,000 °C %	< 1
Compressive strength MPa	8–10
Loss on Ignition %	7

HSI · 1100

Wollastonite Calcium Silicate Boards

Single grade — wollastonite fibres + CaSi for backup insulation & fire protection

HSI 1100 are calcium-silicate and wollastonite-fibre based boards ideal for backup insulation, fire protection, fire doors, electrical appliances and arc-resistant applications. Combine high compressive strength, low conductivity and excellent fire resistance for general industrial backup insulation duties.

CLASSIFICATION TEMP.	Λ @ 600 °C	COMPRESSIVE STRENGTH
1,000 °C	0.12 W/m·K	8 – 10 MPa

FEATURES & ADVANTAGES

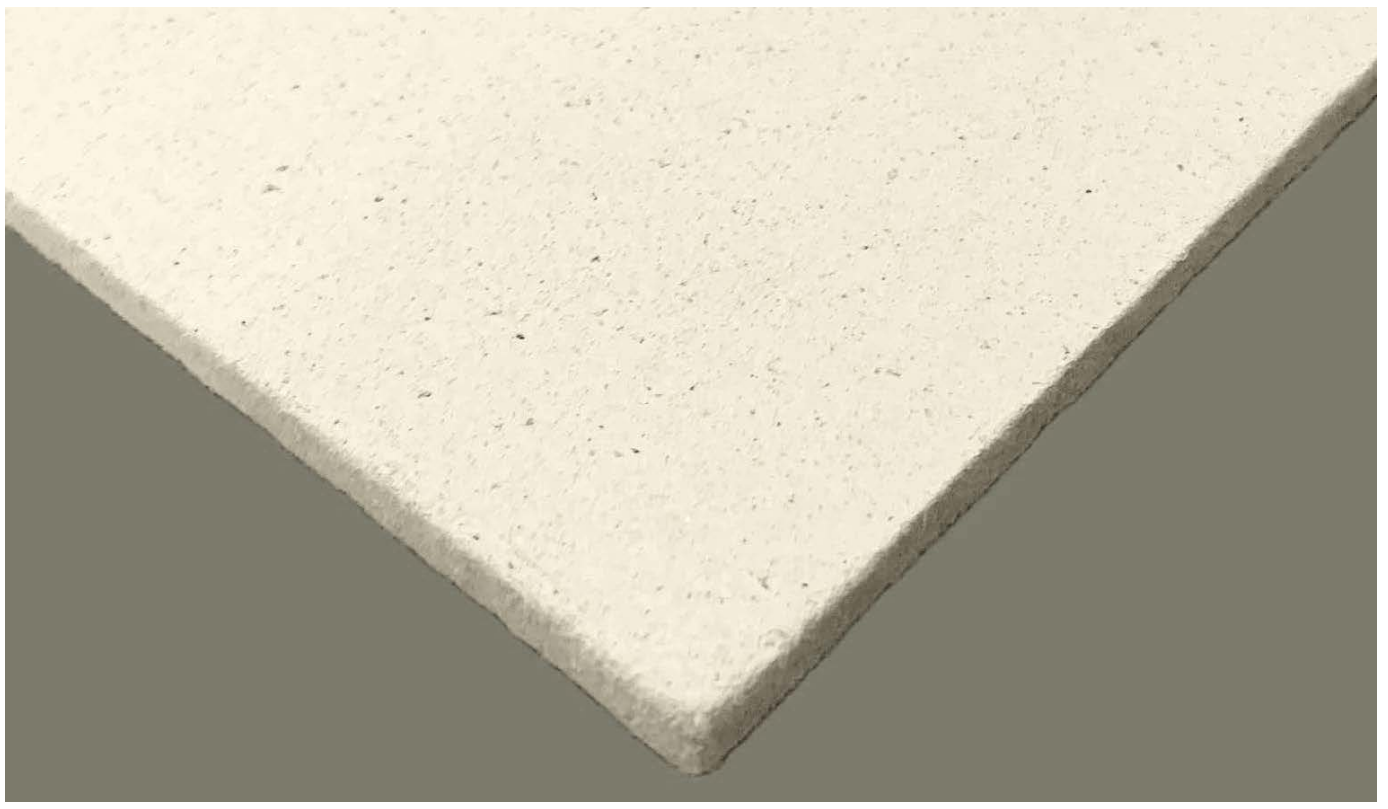
- Very strong boards with high compressive strength
- High-temperature resistance up to 1,100 °C
- Low thermal conductivity at high temperatures
- High electrical resistance at elevated temperature
- High fire resistance and heat-shield properties
- Easy to cut, punch and machine

APPLICATIONS

- Backup insulation in furnaces, dryers and kilns
- Fire-rated doors, lifts, safes and cupboards
- Electrical home appliance heat-shield gaskets
- Duct fire protection and pipe insulation
- High-temperature gasketing and seals
- Electrical-arc resistant applications

TECHNICAL PROPERTIES

Property	Value
Base materials	Wollastonite fibres + Calcium Silicate
Classification temperature °C	1,000
Density kg/m³	1,000
THERMAL CONDUCTIVITY (W/M·K)	
at 400 °C	0.11
at 600 °C	0.12
at 800 °C	0.14
MECHANICAL & OTHER	
Tensile strength MPa	5
Flexural strength MPa	6
Shrinkage @ 1,000 °C %	< 1
Compressive strength MPa	8–10
Loss on Ignition %	8



RIMB · 1000–1260A

High-Temperature Millboards & Gaskets

Three grades — RIMB 1000A · 1100A · 1260A — wollastonite, CaSi & rockwool mix

Wedge RIMB are refractory-grade insulation millboards, gaskets and seals made from wollastonite, calcium-silicate and rockwool fibres bonded with high-temperature clays. Used for furnace backup insulation, high-temperature gasketing, expansion joints and wet-mouldable pipe insulation.

CLASSIFICATION TEMP.	Λ @ 600 °C	COMPRESSION STRENGTH
1,000 – 1,260 °C	**0.12 – 0.13** W/m·K	**8 – 12** MPa

FEATURES & ADVANTAGES

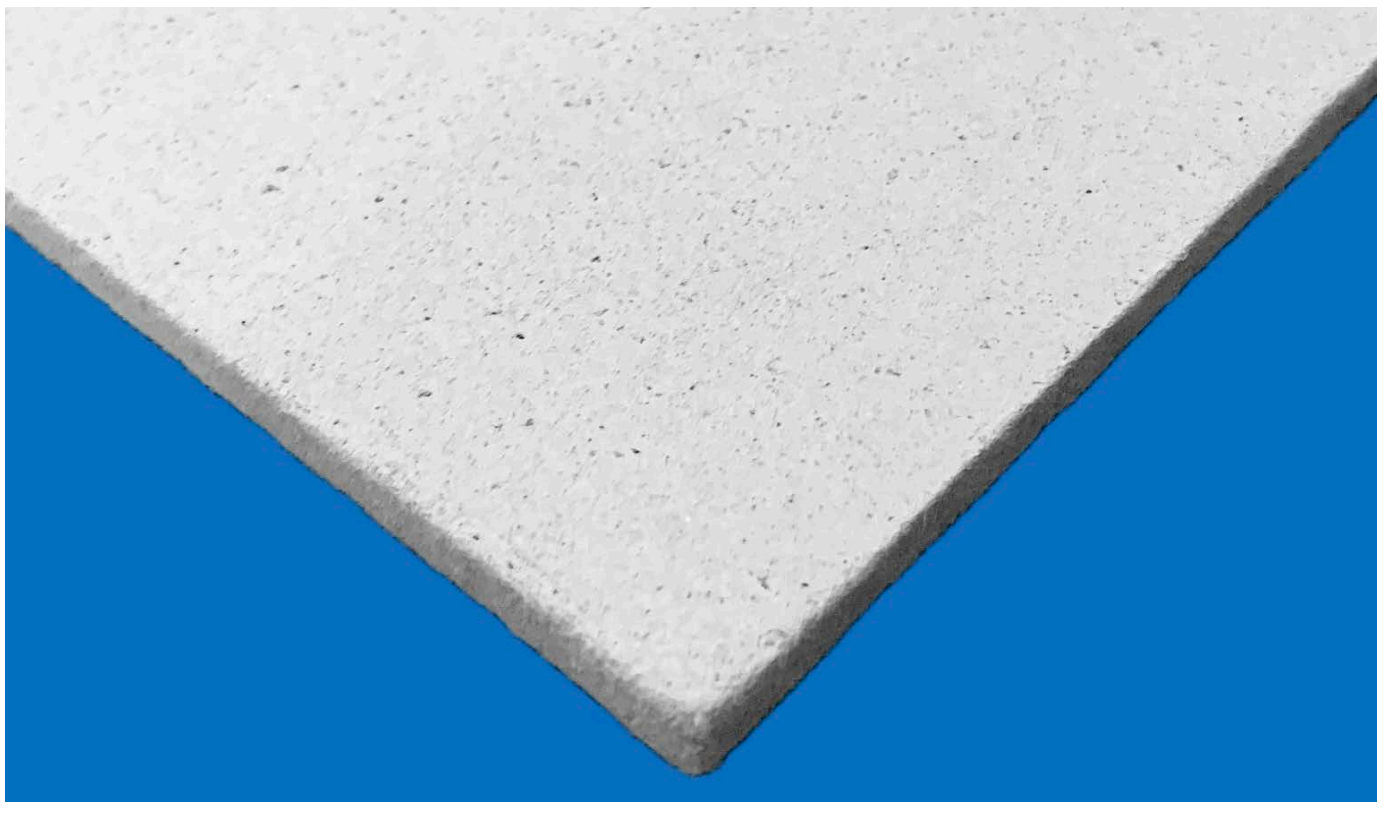
- Strong boards with high compressive strength
- High-temperature resistance 1,000–1,260 °C
- Very low thermal conductivity at high temperatures
- High electrical resistance at elevated temperature
- Easy to cut and punch; wet-mouldable for pipe insulation
- High fire resistance and heat-shield properties

APPLICATIONS

- Ladle & tundish high-temperature gaskets
- Lime and cement kiln backup insulation
- Refractory expansion joints
- Boiler, oven and burner insulation
- Stainless-steel plant rollers insulation
- Fire-resistant doors, lifts and safes

TECHNICAL PROPERTIES · 3 GRADES

Property	RIMB 1000A	RIMB 1100A	RIMB 1260A
Colour	Brown / White	Buff	White
Classification temperature °C	1,000	1,100	1,260
Density kg/m³	1,000	1,000	1,000
THERMAL CONDUCTIVITY (W/M·K)			
at 400 °C	0.11	0.12	0.11
at 600 °C	0.12	0.13	0.12
at 800 °C	0.14	0.14	0.13
MECHANICAL & OTHER			
Electrical resistance Ω×10⁹/cm²	7.9	4.2	2.4
Tensile strength MPa	5	5	5
Flexural strength MPa	7	6	6
Shrinkage @ 1,000 °C %	2	1.8	1.6
Compression strength MPa	8	12	12



FP1000 · SP1150

High Density CaSi Fireproof Boards

Two grades — FP1000 · SP1150 — asbestos-free fire boards for structural protection

FP1000 and SP1150 are high-temperature fireproof CaSi-based boards manufactured from cement, calcium silicate and asbestos-free minerals. Large-sized, easy to handle, with high acoustic insulation, humidity tolerance and fire rating up to 240 minutes for 10 mm thick — for structural steel protection, fire doors and timber-floor fire upgrades.

SERVICE TEMPERATURE	FIRE RATING @ 10 MM	FIRE CLASSIFICATION
100 – 1,200 °C short-term	**120 – 240** minutes	**A1** Non-combustible

FEATURES & ADVANTAGES

- Fire rating up to 240 minutes at 10 mm thickness
- Short-term temperature resistance up to 1,200 °C
- Continuous operating temperature up to 450 °C
- Service life beyond 15 years
- Good thermal and acoustic insulation
- Unaffected by humidity; asbestos-free mineral construction

APPLICATIONS

- Structural steel fire protection
- Self-supporting ceilings and access panels
- Industrial furnace and apparatus construction
- Fire-door manufacturing (FD30 / FD60 / FD120 / FD240)
- Timber-floor fire upgrades
- Steel duct cladding, smoke barriers, parapet walls

TECHNICAL PROPERTIES · 2 GRADES

Property	FP1000	SP1150
Colour	White / Grey	White / Light Brown
Short-term service temperature °C	1,200	1,000
Classification temperature °C	400	100
Density kg/m³	880–900	1,150
THERMAL CONDUCTIVITY (W/M·K)		
at 20 °C	0.16	0.18
at 100 °C	0.18	—
at 200 °C	0.20	—
MECHANICAL & FIRE		
Tensile strength MPa	5	4
Flexural strength MPa	8	8
Compression strength MPa	10	8
Fire rating (10 mm thick) min	240	120
Building material class	A1 Non-combustible	A1 Non-combustible
Sheet size mm	2,500 × 1,220	2,500 × 1,220
Thickness mm	4–30	4–30

FAMILY 03 — REFRACTORY & CERAMIC FIBRE

Refractory & Ceramic Fibre

Alumina-silicate, polycrystalline and alkaline-earth-silicate fibres in blanket, board, paper, felt and module form — for furnace linings, kilns and high-temperature backup, plus refractory glues.

TEMPERATURE RANGE	CONDUCTIVITY	PRODUCTS	STANDARDS
450 → 1,900 °C	**0.05 → 0.41 W/m·K**	**16**	**ISO 9001 / 14001**

IN THIS FAMILY

HDSP450

Calcium Silicate Sandwich Panel

Single grade — CalSil HD450 cement-bonded sandwich panel, asbestos-free mineral

CalSil HD450 insulating boards are produced with special cement technology, calcium-silicate based and purely mineral, asbestos-free. Large-sized for mechanically strong, self-supporting constructions combining thermal insulation, drying, ventilation, fire protection and noise control without classification.

CLASSIFICATION TEMP.	λ	COMPRESSIVE STRENGTH
450 °C continuous	**0.16** W/m·K	**9.3** N/mm²

FEATURES & ADVANTAGES

- Harmless in terms of working hygiene
- Large-sized, self-supporting boards
- Minimum thermal bridges; vibration-proof
- Corrosion- and rot-resistant
- Good chemical resistance; diffusion-open
- Variable surface coatings possible

APPLICATIONS

- Industrial dryers and apparatus construction
- Industrial furnaces and apparatus enclosures
- Hospital partition insulation
- Fire-protection walls and partitions
- Heat-shield barriers; interior heat insulation
- Acoustic insulation and noise reduction

TECHNICAL PROPERTIES

Property	Value
Colour	Light Grey / White
Classification temperature °C	450
Shrinkage @ 400 °C, 24 h %	0.25
Bulk density kg/m³	870
Compressive strength N/mm²	9.3
Thermal conductivity λ W/m·K	0.16
STANDARD SIZES	
Length × Width mm	2,440 × 1,220
Thickness mm	6, 8, 9, 10, 12, 15, 20, 25

ALESI · 350–1450

Alkaline Earth Silicate Boards

Four grades — ALESI 350 · 400 · 1000 · 1450 — alkaline-earth silicate wool boards

ALESI boards are alkaline-earth silicate-wool boards manufactured by wet forming with ceramic-fibre bulk and binders. A unique shot-removal and vacuum-forming process delivers low thermal conductivity, high temperature stability, uniform density and excellent thermal-shock and chemical-attack resistance — for furnace lining, blast-furnace insulation and high-temperature gasketing.

CLASSIFICATION TEMP.	Λ @ 600 °C	COMPRESSIVE STRENGTH
1,100 – 1,450 °C	**0.14 – 0.18** W/m·K	**3 – 10** MPa

FEATURES & ADVANTAGES

- High thermal-shock resistance and heat resistance
- Suitable for very high-temperature application
- Low thermal conductivity at temperature
- Very low linear shrinkage; very low shot content
- Excellent chemical stability
- Low heat storage; high tensile strength

APPLICATIONS

- Industrial furnace lining
- Blast-furnace insulation
- Steel reheating furnaces
- Heat-treatment furnaces & kilns
- Forging furnaces and ceramics kilns
- Heat-resistant sealing gaskets; high-temperature filter media

TECHNICAL PROPERTIES · 4 GRADES

Property	ALESI 350	ALESI 400	ALESI 1000	ALESI 1450
Classification temperature °C	1,260	1,260	1,100	1,450
Bulk density kg/m³	300–350	400–450	1,000	350–400
Cold compressive strength MPa	3	3	10	3
Bending strength MPa	1	1	8	1
Shrinkage after 24 h	< 4 @ 1,200	< 4 @ 1,200	< 2 @ 1,000	< 4 @ 1,200
THERMAL CONDUCTIVITY (W/M·K)				
at 200 °C	0.10	0.10	0.10	0.14
at 400 °C	0.12	0.12	0.12	0.16
at 600 °C	0.14	0.14	0.16	0.18
at 800 °C	0.16	0.16	0.20	0.20

BA · 90 – 99HP

Alumina Ceramic Insulating Boards

Four grades — BA90 · BA95 · BA99 · BA99HP — high-purity alumina bubble brick

Wedge BA series are high-temperature lightweight refractory bricks made using insulated alumina with hollow spherical Al_2O_3 bubbles. Capable of service to 1,800–1,900 °C with extremely low thermal conductivity, high purity and excellent thermal-shock, erosion and chemical-attack resistance — for furnace, kiln and refractory lining at the highest temperatures.

CLASSIFICATION TEMP.	Λ @ 1,000 °C	AL_2O_3 CONTENT
1,760 – 1,800 °C	**0.9** W/m·K	**92 – 99.2** %

FEATURES & ADVANTAGES

- High-purity alumina ≥ 92 % up to 99.2 %
- Excellent thermal-shock resistance
- Very low thermal conductivity at high temperatures
- High porosity from hollow alumina bubble structure
- Resistant to erosion and chemical attack
- Low reversible linear thermal expansion

APPLICATIONS

- Lining of furnaces, kilns and high-temperature equipment
- Refractory backup insulation at 1,500 °C and above
- Glass tank furnace crown insulation
- Petrochemical reformer and reactor linings
- Refractory laboratory ware and equipment
- Aerospace and rocket-engine thermal protection

TECHNICAL PROPERTIES · 4 GRADES

Property	BA90	BA95	BA99	BA99HP
Classification temperature °C	1,760	1,760	1,800	1,800
Density kg/m³	1,400–1,600	1,400–1,600	1,400–1,600	1,400–1,600
Flexural strength MPa	6	4.5	3.5	3.5
Cold crushing strength MPa	18	15	10	10
Reversible linear expansion % max	1.2	1.2	1.3	1.3
Linear shrinkage @ 1,600 °C / 5 h %	−0.3	−0.3	−0.2	−0.2
COMPOSITION (%)				
Al_2O_3	92	97	99	99.2
SiO_2	7	2	0.3	0.2
THERMAL CONDUCTIVITY (W/M·K)				
at 200 °C	0.68	0.68	0.69	0.69
at 600 °C	0.8	0.8	0.8	0.8
at 1,000 °C	0.9	0.9	0.9	0.9

AISi · 1500 – 1650

High Alumina Refractory Fibre Blanket

Four grades — AlSi 1500 · 1550 · 1600 · 1650-128M — polycrystalline wool

Wedge AlSi 1600 series is polycrystalline wool refractory fibre insulation for continuous service to 1,600 °C. High alumina content delivers extremely low shrinkage and stable thermal-mechanical properties at high temperature. Mullite-corundum structure with chromia and zirconia variants for specific chemistries.

SERVICE TEMPERATURE	Λ @ 1,000 °C	DENSITY
1,500 – 1,650 °C	**0.24 – 0.32** W/m·K	**96 – 128** kg/m³

FEATURES & ADVANTAGES

- Continuous service to 1,600 °C and short term 1,650 °C
- Extremely low shrinkage from high alumina content
- Excellent thermal-shock and chemical stability
- Suitable for very high-temperature application
- Very low shot content
- Low heat storage; high tensile strength

APPLICATIONS

- High-temperature industrial furnace lining
- Blast-furnace and reheating-furnace insulation
- Heat-treatment furnaces and kilns
- Forging-furnace and ceramic-kiln insulation
- Heat-resistant sealing gaskets
- High-temperature filter materials

TECHNICAL PROPERTIES · 4 GRADES

Property	AlSi1600	AlSi1550	AlSi1500	AlSi-1650-128M
Maximum service temperature °C	1,600	1,550	1,500	1,650
Density kg/m³	96, 128	128	128	128
Al_2O_3 %	80	45	40	74
Thermal shrinkage @ 24 h	@1,500°C <0.8	@1,400°C <3	@1,400°C <3	—
THERMAL CONDUCTIVITY (W/M·K)				
at 400 °C	0.09	0.05	0.05	0.08
at 500 °C	0.11	0.12	0.11	0.09
at 800 °C	0.21	0.18	0.15	0.17
at 1,000 °C	0.32	0.27	0.24	0.24
at 1,200 °C	0.41	0.32	0.38	0.33
STANDARD SIZES				
Thickness mm	12.5 / 25	12.5 / 25	12.5 / 25	6 / 12.5 / 25
Length × Width mm	620 × 7,200	620 × 7,200	610 × 3,600	610 × 3,600

AISi · 1100 – 1450

Aluminium Silicate Flexible Insulation

Three grades — AlSi 1100 · 1260 · 1450 — ASZ blanket with multiple densities

Wedge AlSi flexible insulation is aluminium-silicate-fibre based, suitable for fire-door infill, partition walls, pipe insulation and ceramic-kiln linings. Available in mattress and semi-rigid board form, combining low heat storage with complete thermal-shock resistance and high fire resistance.

CLASSIFICATION TEMP.	Λ @ 500 °C	DENSITY
1,100 – 1,450 °C	**0.12 – 0.18** W/m·K	**65 – 160** kg/m³

FEATURES & ADVANTAGES

- High thermal-shock resistance, heat resistance
- Suitable for making fire doors and fire walls
- Low thermal conductivity, excellent chemical stability
- Low shot content, low heat storage
- High tensile strength for fire-wrap applications
- Customisable thickness 6 – 100 mm

APPLICATIONS

- Industrial furnace lining and ceramic kilns
- Fire-wrap and infill material in fire doors
- Fire-resistant wall and partition assemblies
- High-temperature pipe heat preservation
- Heat-resistant sealing gaskets
- Power-boiler and nuclear heat insulation

TECHNICAL PROPERTIES · 3 GRADES

Property	AISi 1100	AISi 1260	AISi 1450
Classification temperature °C	1,100	1,260	1,450
Density (3 ranges) kg/m³	65 / 100 / 130	100 / 130 / 160	100 / 130 / 160
Al_2O_3 %	44	≥ 45	≥ 34
$Al_2O_3 + SiO_2$ %	≥ 96	≥ 98	≥ 85
ZrO_2 %	—	—	≥ 15
Shot content % max	≤ 15	≤ 15	≤ 12
Permanent linear change	1,100 °C / 24 h ≤ −2.5	—	1,350 °C / 24 h ≤ −2.5
THERMAL CONDUCTIVITY (W/M·K) — DENSEST GRADE			
at 400 °C	0.095	0.101	0.118
at 500 °C	0.123	0.120	0.145
at 600 °C	0.158	0.175	0.172
Tensile strength MPa	0.040–0.050	0.050–0.075	0.050–0.075
Standard sizes	14,400 / 7,200 / 3,600 × 1,220 / 610 mm × 6–100 mm thick		

CaSiF · 800 – 1260

Calcium Silicate Fibre Ceramic Blanket

Four grades — CaSiF 800 · 1050 · 1150 · 1260 — bio-grade fibre blanket

Wedge CaSiF is a high-temperature bio-grade fibre blanket manufactured from calcium silicate, silica and magnesium for industrial applications to 1,200 °C. Flexible, lightweight, needled — used for refractory back lining and general thermal insulation where bio-soluble fibres are required by EU REACH and other regulations.

CLASSIFICATION TEMP.	Λ @ 400 °C	DENSITY
800 – 1,260 °C	**0.05 – 0.10** W/m·K	**96 – 180** kg/m³

FEATURES & ADVANTAGES

- Bio-grade soluble fibre — REACH compliant
- High thermal-shock resistance
- Low thermal conductivity
- Very low linear shrinkage
- Excellent chemical stability
- Low heat storage; high tensile strength

APPLICATIONS

- Industrial furnace lining
- Blast-furnace and reheating-furnace insulation
- Heat-treatment furnaces and kilns
- Forging-furnace insulation
- Heat-resistant sealing gaskets
- Ceramics-kiln thermal insulation

TECHNICAL PROPERTIES · 4 GRADES

Property	CaSiF 800	CaSiF 1050	CaSiF 1150	CaSiF 1260
Classification temperature °C	800	1,050	1,150	1,260
Max service temperature °C	750	1,000	1,100	1,200
Melting temperature °C	1,400	1,400	1,400	1,400
Density kg/m³	96–180	96–180	96–180	96–180
SiO_2 %	60–70	65–72	70–75	72–80
CaO %	25–33	25–33	25–33	20–30
Shrinkage @ 1,000 °C / 24 h %	< 1.3	< 1.3	< 1.3	< 1.3
THERMAL CONDUCTIVITY (W/M·K)				
at 100 °C	0.04	0.04	0.04	0.04
at 400 °C	0.09	0.05	0.05	0.10
at 800 °C	0.26	0.26	0.26	0.26

AlSi · Felt

Aluminium Silicate Ceramic Felt

Three grades — AlSi 47 · AlSi 52 · AlZSi 15 — high-grade ceramic fibre felt sheet

Wedge AlSi felts are ceramic-fibre felts manufactured from high-grade ceramic fibre formed into flexible sheets. They deliver high temperature resistance, very low thermal conductivity, chemical-corrosion resistance and thermal-shock stability — for ingot-mould liners, refractory backup insulation and molten-metal splash protection.

CLASSIFICATION TEMP.	MELTING POINT	TENSILE STRENGTH
1,050 – 1,430 °C	1,650 – 2,000 °C	≥ 0.3 MPa

FEATURES & ADVANTAGES

- High thermal-shock resistance and heat resistance
- Low thermal conductivity
- Excellent chemical stability
- Non-wetting to molten aluminium
- Low heat storage; easy to cut and machine
- Customisable size up to 40 m length

APPLICATIONS

- Industrial furnace lining
- High-temperature pipe heat preservation
- High-temperature insulation gaskets
- Ingot-mould liner protection
- Refractory backup insulation
- Molten-metal splash and spark protection

TECHNICAL PROPERTIES · 3 GRADES

Property	AlSi 47	AlSi 52	AlZSi 15
Classification temperature °C	1,050	1,260	1,430
Melting temperature °C	1,650	1,785	2,000
Al_2O_3 %	47	≥ 52	≥ 34
SiO_2 %	≥ 52	≥ 47	≥ 50
ZrO_2 %	—	—	≥ 15
Tensile strength MPa	≥ 0.3	≥ 0.3	≥ 0.3
Density kg/m³	190–250	190–250	190–250
Standard size	40,000 / 30,000 / 20,000 / 10,000 × 1,220 / 610 mm × 2–10 mm thick		

AlSi · Flex-P

Aluminium Silicate Flexible Paper

Four grades — WedGel 650HP · FP1050 · FP1260 · FPZ1450 — high-alumina fibre paper

Wedge AlSi Flexible paper is a high-performance alumina-silicate fibre paper formed into flexible sheets. High temperature resistance, very low thermal conductivity, chemical-corrosion resistance and thermal-shock stability. Used in furnace components, gaskets, combustion-chamber and exhaust-stack liners, and molten-metal contact applications.

CLASSIFICATION TEMP.	Λ @ 400 °C	DENSITY
700 – 1,450 °C	**0.04 – 0.08** W/m·K	**190 – 280** kg/m³

FEATURES & ADVANTAGES

- High thermal-shock resistance; heat resistance
- Low thermal conductivity; excellent chemical stability
- Non-wetting to molten aluminium
- High strength; easy to cut and machine
- Available in 1–10 mm thickness up to 40 m length
- ISO 9001 / 14001 quality certified

APPLICATIONS

- Industrial furnace lining and combustion chambers
- Flue and exhaust stack liners; fire protection
- Heat shields and high-temperature gaskets
- Hot tops for super-alloy casting
- Molten-aluminium contact applications
- Semiconductor processing equipment liners

TECHNICAL PROPERTIES · 4 GRADES

Property	WedGel 650HP	FP1050	FP1260	FPZ1450
Classification temperature °C	700	1,050	1,260	1,450
Colour	White	White	White	White
Al_2O_3 %	1–3	46–52	48–54	≥ 34
SiO_2 %	98–99	50–54	50–55	≥ 50
ZrO_2 %	—	—	—	≥ 15
Tensile strength MPa	≥ 0.5	≥ 0.4	≥ 0.5	≥ 0.8
THERMAL CONDUCTIVITY (W/M·K)				
at 25 °C	0.014	0.030	0.04	0.05
at 200 °C	0.03	0.05	0.05	0.07
at 400 °C	0.04	0.06	0.06	0.08
at 600 °C	0.06	0.07	0.08	0.10
at 800 °C	0.12	0.12	0.11	0.12
at 1,000 °C	0.23	0.23	0.16	0.24
Density kg/m³	190–250	190–250	200–280	200–280

AISi · HTI Tapes

Fire & Insulation Ceramic Tapes

Three grades — HTI 1050 · HTI 1265 · HTI 1450 — high-performance ceramic-felt tape

Wedge AISi HTI tapes are made of high-performance ceramic felts manufactured from high-strength ceramic fibre formed into flexible rolls or sheets. Very high insulation performance, fire protection to 240 minutes, low thermal conductivity, chemical-corrosion resistance — for door fire-sealing (glass, steel, wooden), pipe insulation and ingot-mould liner protection.

CLASSIFICATION TEMP.	FIRE PROTECTION	MELTING POINT
1,050 – 1,450 °C	**Up to 240** minutes	**1,650 – 2,000** °C

FEATURES & ADVANTAGES

- Very high insulation and protection from heat loss
- Excellent fire protection up to 240 minutes
- High thermal-shock resistance
- Low thermal conductivity
- Excellent chemical stability
- Non-wetting to molten aluminium

APPLICATIONS

- Industrial furnace lining
- Fire sealing for glass, steel, wooden doors
- High-temperature pipe heat preservation
- High-temperature insulation gaskets
- Ingot-mould liner protection
- Hot-top lining and high-temperature seals

TECHNICAL PROPERTIES · 3 GRADES

Property	HTI 1050	HTI 1265	HTI 1450
Classification temperature °C	1,050	1,265	1,450
Melting temperature °C	1,650	1,785	2,000
Al_2O_3 %	≥ 42	≥ 45	≥ 34
SiO_2 %	≥ 52	≥ 53	≥ 50
ZrO_2 %	—	—	≥ 15
Tensile strength MPa	≥ 0.3	≥ 0.3	≥ 0.3
Density kg/m³	190–250	190–250	190–250
Length / Width / Thickness	12,000–20,000 mm / 5–1,000 mm / 2–50 mm — custom sizes available		

HD-AlSi · Blanket

High Density Alumina Silicate Ceramic Blanket

Four grades — HD-AlSi 1600 · 1550 · 1450 · 1260 — chrome / zircon / polycrystalline wool

Wedge HD AlSi blanket is a high-density alumina-silicate refractory ceramic fibre insulation for continuous service to 1,600 °C. High alumina content and chromia/zirconia chemistry deliver low shrinkage and stable thermal/mechanical properties at high temperature.

SERVICE TEMPERATURE	Λ @ 1,000 °C	DENSITY
1,260 – 1,600 °C	**0.24 – 0.32** W/m·K	**96 – 198** kg/m³

FEATURES & ADVANTAGES

- Continuous service to 1,600 °C
- Chromia and zirconia variants for chemistry control
- Very low shrinkage at high temperature
- Mullite-corundum structure for stability
- Suitable for the most demanding furnace linings
- Excellent thermal-shock and chemical stability

APPLICATIONS

- Industrial high-temperature furnace lining
- Blast-furnace insulation
- Steel reheating and heat-treatment furnaces
- Forging furnaces and ceramic kilns
- Heat-resistant sealing gaskets
- High-temperature filter media

TECHNICAL PROPERTIES · 4 GRADES

Property	HD-AlSi1600	HD-AlSi1550	HD-AlSi1450	HD-AlSi1260
Max service temperature °C	1,600	1,550	1,450	1,260
Density kg/m³	96, 128	128	128	150–198
Al_2O_3 %	80	45	35–40	40–45
Thermal shrinkage @ 24 h	@1,500°C <0.8	@1,400°C <3	@1,400°C <3	@1,100°C <2.5
THERMAL CONDUCTIVITY (W/M·K)				
at 400 °C	0.09	0.05	0.05	0.10
at 800 °C	0.21	0.18	0.15	0.15
at 1,000 °C	0.32	0.27	0.24	0.24
at 1,200 °C	0.41	0.32	0.38	0.35

HD-AlSi · Board

High Density Aluminium Silicate Board

Four grades — HDAlSi 900 · 1000 · 400 · 1450 — vacuum-formed ceramic-fibre boards

Wedge HD AlSi boards are ceramic-fibre boards manufactured by wet or vacuum forming. Unique shot-removal delivers low thermal conductivity, high stability and excellent thermal-shock and chemical-attack resistance — for vibration- and stress-loaded insulation in furnaces, kilns and processing equipment.

CLASSIFICATION TEMP.	Λ @ 600 °C	DENSITY
1,100 – 1,450 °C	**0.14 – 0.18** W/m·K	**350 – 1,000** kg/m³

FEATURES & ADVANTAGES

- High thermal-shock and heat resistance
- Suitable for high-temperature application
- Low thermal conductivity
- Excellent chemical stability
- High strength under load and vibration
- Multiple sheet sizes and thicknesses

APPLICATIONS

- Industrial furnace lining
- Blast-furnace insulation
- Steel reheating and heat-treatment furnaces
- Forging furnaces and ceramic kilns
- Heat-resistant sealing gaskets
- High-temperature filter media

TECHNICAL PROPERTIES · 4 GRADES

Property	HDAlSi 900	HDAlSi 1000	HDAlSi 400	HDAlSi 1450
Classification temperature °C	1,200	1,100	1,260	1,450
Bulk density kg/m³	900	1,000	400	350
Cold compressive strength MPa	8	10	3	3
Bending strength MPa	7	8	1	1
Shrinkage after 24 h	< 2 @ 850	< 2 @ 1,000	< 4 @ 1,200	< 4 @ 1,200
THERMAL CONDUCTIVITY (W/M·K)				
at 200 °C	0.08	0.10	0.10	0.14
at 400 °C	0.12	0.12	0.12	0.16
at 600 °C	0.14	0.16	0.14	0.18
at 800 °C	0.16	0.20	0.16	0.20
Thickness mm	2, 5, 6, 9, 10, 12 (all)			
Sheet sizes mm	500 × 500 / 1,000 × 1,000 / 1,000 × 1,200 / 12,000 × 1,200			

HDAlSiZ · 130–185

High Density Ceramic Blanket

Three grades — HDAlSiZ 130 · 160 · 185 — high-density ceramic fibre, zirconia-bearing

Wedge AlSiZ are high-temperature, high-density ceramic fibre blankets commonly used in metallurgy, petrochemical and furnace insulation. Three densities (130, 160, 185 kg/m³) with zirconia 15–17 % for high-temperature dimensional stability.

SERVICE TEMPERATURE	Λ @ 800 °C	DENSITY
1,430 – 1,450 °C	**0.15 – 0.21** W/m·K	**130 – 185** kg/m³

FEATURES & ADVANTAGES

- High thermal-shock resistance
- High tensile strength
- Low thermal conductivity
- Excellent chemical stability
- Easy to cut and machine
- Tensile strength 58–74 kPa along direction

APPLICATIONS

- Industrial furnace lining
- High-temperature pipe heat preservation
- High-temperature insulation gaskets
- Ingot-mould liner; refractory backup insulation
- Molten-metal splash and spark protection
- Hot-top lining and silencer insulation

TECHNICAL PROPERTIES · 3 GRADES

Property	HDAlSiZ 130	HDAlSiZ 160	HDAlSiZ 185
Max service temperature °C	1,430–1,450	1,430–1,450	1,430–1,450
Density kg/m³	130	160	185–190
Al_2O_3 %	35–40	35–40	35–40
SiO_2 %	45–50	45–50	45–50
ZrO_2 %	15–17	15–17	15–17
Mean fibre diameter µm	3.4	3.5	3.8
Shot content max %	40	40	40
THERMAL CONDUCTIVITY (W/M·K)			
at 400 °C	0.08	0.09	0.09
at 800 °C	0.21	0.18	0.15
at 1,200 °C	0.41	0.32	0.36
Tensile strength along direction kPa	58	68	74

AlSi-M · 1260–1430

Aluminium Silicate Ceramic Modules

Three grades — AlSi-M1260 · M1350HP · M1430 — folded-blanket modules

Wedge AlSi-M ceramic-fibre modules are folded-blanket modules for direct fire-side furnace lining. Made by the latest spinning, needling and thermal-forming processes, they combine low heat storage with complete thermal-shock resistance and extreme fire resistance. Available with anchoring systems for industrial furnaces and kilns.

CLASSIFICATION TEMP.	Λ @ 1,000 °C	DENSITY
1,260 – 1,430 °C	**0.26 – 0.27** W/m·K	**160 – 220** kg/m³

FEATURES & ADVANTAGES

- High thermal-shock and heat resistance
- Suitable for making fire doors and fire walls
- Low thermal conductivity
- Excellent chemical stability
- Low shot content; low heat storage
- Pre-folded modules speed installation

APPLICATIONS

- Industrial furnace lining and kilns
- Fire-wrap and infill in fire doors
- Fire-resistant walls and partitions
- High-temperature pipe heat preservation
- Glass-tank furnace thermal insulation
- Power-boiler and nuclear heat insulation

TECHNICAL PROPERTIES · 3 GRADES

Property	AlSi-M1260	AlSi-M1350HP	AlSi-M1430
Classification temperature °C	1,260	1,350	1,430
Al_2O_3 %	43	52	35
SiO_2 %	54	47	49
ZrO_2 %	—	—	15
Density kg/m³	160–220	160–220	160–220
Permanent linear shrinkage	1,000 °C / 24 h ≤ 2.5	1,200 °C / 24 h ≤ 3.0	1,350 °C / 24 h ≤ 3.0
THERMAL CONDUCTIVITY (W/M·K)			
at 400 °C	0.10	0.10	0.10
at 600 °C	0.18	0.16	0.15
at 800 °C	0.20	0.20	0.19
at 1,000 °C	0.27	0.26	0.26

AlSi · Wool

Aluminium Silicate Ceramic Wool Bulk

Five grades — AlSi 96 · AlSi 99 · Textile · Chopped · ASZ 15 — bulk ceramic fibre

Wedge AlSi wool is ceramic-fibre bulk made of high-purity composite raw materials, melted in resistance furnaces and processed by blowing or spinning. Used as feedstock for blankets, boards, fire doors and as a packing material for expansion joints and kiln-car furniture.

CLASSIFICATION TEMP.	λ @ 600 °C	FIBRE DIAMETER
1,260 – 1,430 °C	0.15 – 0.17 W/m·K	3 – 5 µm

FEATURES & ADVANTAGES

- High thermal-shock resistance
- Excellent thermal stability
- Low thermal conductivity; low heat storage
- High-temperature resistance
- Multiple chemistries — silica, alumina, zirconia
- Bulk packing for expansion joints

APPLICATIONS

- Raw material for ceramic-fibre blanket & boards
- Joint-filling material in insulation installation
- Packing for expansion joints
- Fire-resistant doors infill
- Kiln-car filling and furniture support
- Refractory casting and acoustic packing

TECHNICAL PROPERTIES · 5 GRADES

Property	AlSi 96	AlSi 99	Textile	Chopped	ASZ 15
Classification temperature °C	1,260	1,260	1,260	1,260	1,430
Melting temperature °C	1,425	1,575	1,575	1,575	1,750
Al_2O_3 %	≥ 44	≥ 45	≥ 45	≥ 45	≥ 34
$Al_2O_3 + SiO_2$ %	≥ 96	≥ 99	≥ 99	≥ 99	≥ 84
ZrO_2 %	—	—	—	—	≥ 15
Shot content % max	≤ 15	≤ 15	≤ 12	≤ 10	≤ 12
THERMAL CONDUCTIVITY (W/M·K)					
at 200 °C	0.06	0.07	0.06	0.06	0.075
at 400 °C	0.09	0.10	0.10	0.10	0.11
at 600 °C	0.15	0.15	0.15	0.15	0.168

HTAL · 1600

High Temperature Ceramic Glue

Single grade — high-alumina air-setting refractory cement for service to 1,700 °C

Wedge HTAL1600 is high-alumina air-setting refractory cement used for bricklaying with thin joints, air & gas joints and strong joints. The fibre product can be shaped or moulded into refractory bricks at any density — useful for quick repair and monolithic linings in furnaces, reactors, kilns and investment-casting moulds.

SERVICE TEMPERATURE	DENSITY	SHRINKAGE
1,600 – 1,700 °C	1,800 kg/m³	< 3 %

FEATURES & ADVANTAGES

- High-alumina formulation for extreme service
- Air-setting — no heat needed for cure
- Mouldable into bricks or as monolithic lining
- Strong joint bonds with thin film
- Initial set 1–2 hours; final set 4–6 hours
- Compatible with refractory fibre boards and ropes

APPLICATIONS

- Refractory brick laying — thin and strong joints
- Air and gas joint sealing
- Furnace and reactor monolithic linings
- Investment-casting mould bonding
- Kiln rebuild and quick repair
- Gas and steam turbine insulation jointing

TECHNICAL PROPERTIES

Property	Value
Service temperature °C	1,600 – 1,700
Density kg/m³	1,800
Shrinkage %	< 3
Al_2O_3 %	32
SiO_2 %	52
Fe_2O_3 %	0.8
Initial setting hours	1–2
Final setting hours	4–6

HTAL · 1000

High Temperature Glue & Adhesives

Two grades — HTAL1000 WK 84 (paste) · WK 84/16 (fluid) — inorganic asbestos-free glue

Wedge HTAL1000 high-temperature glue is developed for economical processing of insulation materials and lightweight construction systems. Inorganic, asbestos-free and incombustible — adheres to almost all foundations. Two consistencies (pasty and fluid) for application by trowel or roller. Service to 1,000 °C.

SERVICE TEMPERATURE	SETTING TIME	SHELF LIFE
1,000 °C continuous	**1 – 8** hours	**6** months (frost-free)

FEATURES & ADVANTAGES

- Ready-to-use, no mixing required
- High permanent temperature resistance to 1,000 °C
- Quick bonding; high adhesion strength
- Inorganic and asbestos-free
- Incombustible, does not generate smoke
- High pH — does not damage steel substrates

APPLICATIONS

- Bonding low-density Calcium Silicate boards
- High-density Calcium Silicate board bonding
- Microporous insulation bonding
- Insulation on steel substrates
- Ceramic fibre and fireproof stones
- Perlite board bonding

TECHNICAL PROPERTIES · 2 GRADES

Property	HTAL1000 WK 84	HTAL1000 WK 84/16
Product	High-temperature glue	High-temperature glue
Classification temperature	1,000 °C	1,000 °C
Colour	Grey	Grey
Consistency	Pasty	Fluid
Processing temperature	5–40 °C	5–40 °C
Setting after application	8 h	1 h
Hardening	24 h	8 h
Full hardening	1 week	1 week
Storage	Frost-free, 6 months	Frost-free, 6 months
Packaging	7.5 / 15 kg bucket	15–20 kg bucket

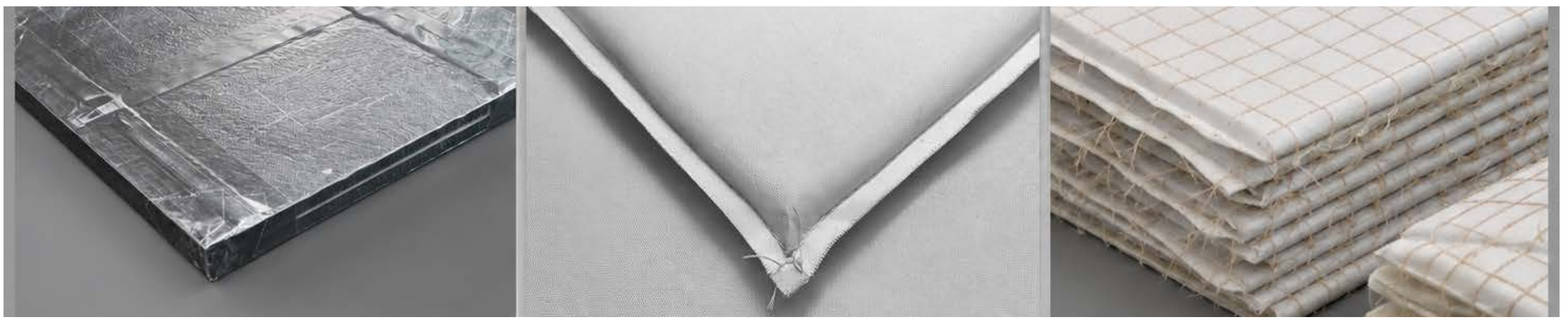
FAMILY 04 — MICROPOROUS

Microporous

Fumed-silica microporous boards, blankets, slated panels and hydrophobic grades — the thinnest practical hot-face backup insulation, with conductivity below still-air at high temperatures.

TEMPERATURE RANGE	CONDUCTIVITY	PRODUCTS	STANDARDS
800 → 1,260 °C	**0.021 → 0.062 W/m·K**	**8**	**Non-combustible A1**

IN THIS FAMILY



FSMP-OS · 900–1200HD

Microporous Overstitched Blanket

Five grades — FSMP-OS 1200 · 1000S · 1000T · 900 · 1200HD — flexible pipe-insulation blanket

FSMP Overstitched are low-density high-performance microporous blankets for pipe insulation. Manufactured by mixing fumed silica agglomerates with opacified pyrogenic silica and filament reinforcement, available with glass-fibre, glass-cloth or aluminium encapsulation coverings. Conductivity below still-air at high temperatures cuts heat loss by 4×.

CLASSIFICATION TEMP.	λ @ 400 °C	FIRE CLASSIFICATION
900 – 1,200 °C	**0.022 – 0.038** W/m·K	**Class A1** Non-combustible

FEATURES & ADVANTAGES

- Very high insulation — λ below still air
- Reduces insulation thickness by up to 4×
- Reduced heat loss and lower shell temperatures
- Energy cost savings and productivity gains
- Non-combustible A1 classification
- Multiple covering options for pipe-work

APPLICATIONS

- Petrochemical pipe insulation
- Concentrated solar thermal power
- General pipe insulation
- Glass, cement and ceramics industry
- Refineries and oil & gas
- Fuel cells and thermal-battery insulation

TECHNICAL PROPERTIES · 5 GRADES

Property	OS 1200	OS 1000S	OS 1000T	OS 900	OS 1200HD
Strength	High	Medium	High	Low	Very High
Colour	Grey	Grey	Brown	Grey	Grey
Density kg/m³	280–320	300–320	320	240–280	360–480
Classification temperature °C	1,200	1,000	1,000	900	1,200
Compressive strength @ 10 % MPa	0.33	0.32	0.34	0.32	0.55
THERMAL CONDUCTIVITY (W/M·K)					
at 200 °C	0.023	0.022	0.021	0.022	0.032
at 400 °C	0.024	0.024	0.022	0.025	0.038
at 600 °C	0.026	0.028	0.028	0.032	0.045
at 800 °C	0.029	0.033	0.031	0.038	0.062
STANDARD SIZES					
Length × Width mm	1,000 × 500				
Thickness mm	3, 5, 6, 7, 8, 10, 12, 15, 20, 25				

FSMP-QF · 900–1200HD

Microporous Quilted Blanket

Five grades — FSMP-QF 1200 · 1000S · 1000T · 900 · 1200HD — 25×25 mm stitched blocks

FSMP Quilted are microporous blankets stitched with 25×25 mm small blocks to provide flexibility for smaller-diameter pipes. Same fumed-silica core as Overstitched but with finer flexibility for tight bends and small fittings. Variety of coverings — glass-cloth, ceramic paper, mica, millboard, steel.

CLASSIFICATION TEMP.	Λ @ 400 °C	FIRE CLASSIFICATION
900 – 1,200 °C	**0.022 – 0.038** W/m·K	**Class A1** Non-combustible

FEATURES & ADVANTAGES

- 25 × 25 mm quilting — flexible around small-radius pipes
- Conductivity below still-air at temperature
- Reduces insulation thickness by up to 4×
- Non-combustible A1
- Wide covering options for installation
- Same fumed-silica core as Overstitched

APPLICATIONS

- Small-diameter petrochemical piping
- Concentrated solar receiver tubing
- General process pipe insulation
- Glass and ceramics industry pipework
- Refineries and oil & gas tubing
- Fuel-cell stack and thermal-battery insulation

TECHNICAL PROPERTIES · 5 GRADES

Property	QF 1200	QF 1000S	QF 1000T	QF 900	QF 1200HD
Strength	High	Medium	High	Low	Very High
Colour	Grey	Grey	Brown	Grey	Grey
Density kg/m³	280–320	300–320	320	240–280	360–480
Classification temperature °C	1,200	1,000	1,000	900	1,200
Compressive strength @ 10 % MPa	0.33	0.32	0.34	0.32	0.55
THERMAL CONDUCTIVITY (W/M·K)					
at 200 °C	0.028	0.024	0.021	0.022	0.032
at 400 °C	0.032	0.026	0.022	0.025	0.038
at 600 °C	0.036	0.030	0.028	0.032	0.045
at 800 °C	0.039	0.036	0.031	0.038	0.062

FSMP-SF · 900–1200HD

Microporous Slated Panel

Five grades — FSMP-SF 1200 · 1000S · 1000T · 900 · 1200HD — slated for one-dimensional pipe wrap

FSMP Slated are slated microporous panels stitched with high-temperature ceramic cloths covering fumed-silica microporous blocks. The slats give one-dimensional flexibility — ideal for wrapping cylindrical pipes and ducts without folds or compression artefacts.

CLASSIFICATION TEMP.	Λ @ 400 °C	FIRE CLASSIFICATION
900 – 1,200 °C	**0.022 – 0.038** W/m·K	**Class A1** Non-combustible

FEATURES & ADVANTAGES

- Slated construction — true cylindrical wrap
- No fold compression at the inner radius
- Conductivity below still-air at temperature
- Reduces insulation thickness by up to 4×
- Non-combustible A1 classification
- Multiple ceramic-cloth covering options

APPLICATIONS

- Pipe and duct insulation
- Petrochemical, refinery and oil & gas
- Concentrated solar thermal power
- Glass and cement industry
- Fuel cells and thermal batteries
- Combustion-gas exhaust lines

TECHNICAL PROPERTIES · 5 GRADES

Property	SF 1200	SF 1000S	SF 1000T	SF 900	SF 1200HD
Strength	High	Medium	High	Low	Very High
Density kg/m³	280–320	300–320	320	240–280	360–480
Classification temperature °C	1,200	1,000	1,000	900	1,200
Compressive strength @ 10 % MPa	0.33	0.32	0.34	0.32	0.55
THERMAL CONDUCTIVITY (W/M·K)					
at 200 °C	0.028	0.024	0.021	0.022	0.032
at 400 °C	0.032	0.026	0.022	0.025	0.038
at 800 °C	0.039	0.036	0.031	0.038	0.062

FSMP 1000S HD

High Strength Microporous Board

Three grades — FSMP 1200 HD · 1000S HD · 1260 HD — high-density structural microporous

Wedge FSMP HD high-strength microporous boards are manufactured by mixing fumed-silica agglomerates with selective opacifiers and filaments at very specific pressures. Highest-possible porosity and density combine to deliver conductivity lower than still air at high temperatures, with high compressive strength up to 0.78 MPa.

CLASSIFICATION TEMP.	Λ @ 400 °C	COMPRESSIVE STRENGTH
1,050 – 1,260 °C	0.024 – 0.038 W/m·K	0.55 – 0.78 MPa

FEATURES & ADVANTAGES

- Conductivity lower than still air at high temperature
- Reduces insulation thickness by 4×
- Reduced heat loss and lower shell temperatures
- Energy cost savings and productivity gains
- Non-combustible A1 classification
- High compressive strength for structural applications

APPLICATIONS

- Furnace back-up insulation
- Steel and aluminium industry
- Glass, cement and ceramics industry
- Petrochemical industry
- Fuel cells and thermal-battery insulation
- Structural insulation under refractory castables

TECHNICAL PROPERTIES · 3 GRADES

Property	FSMP 1200 HD	FSMP 1000S HD	FSMP 1260 HD
Strength	High	Medium	Very High
Colour	Grey	Grey	Grey
Density kg/m³	300–320	280–300	360–480
Classification temperature °C	1,200	1,050	1,260
Compressive strength @ 10 % MPa	0.78	0.74	0.55
THERMAL CONDUCTIVITY (W/M·K)			
at 200 °C	0.023	0.022	0.032
at 400 °C	0.024	0.024	0.038
at 600 °C	0.030	0.028	0.045
at 800 °C	0.032	0.032	0.062

FSMP · 900 – 1260HD

Standard Microporous Board

Five grades — FSMP 1200 · 1000S · 1000T · 900AL · 1260HD — standard microporous board

Wedge FSMP standard microporous boards are the workhorse of the range — fumed-silica with opacifier and filament reinforcement, pressed for optimum porosity. Multiple covering options (plastic, ceramic paper, aluminium foil, glass cloth, mica, millboard) and a wide range of dimensions for back-up insulation in furnaces, kilns and pipework.

CLASSIFICATION TEMP.	λ @ 400 °C	FIRE CLASSIFICATION
900 – 1,260 °C	**0.022 – 0.038** W/m·K	**Class A1** Non-combustible

FEATURES & ADVANTAGES

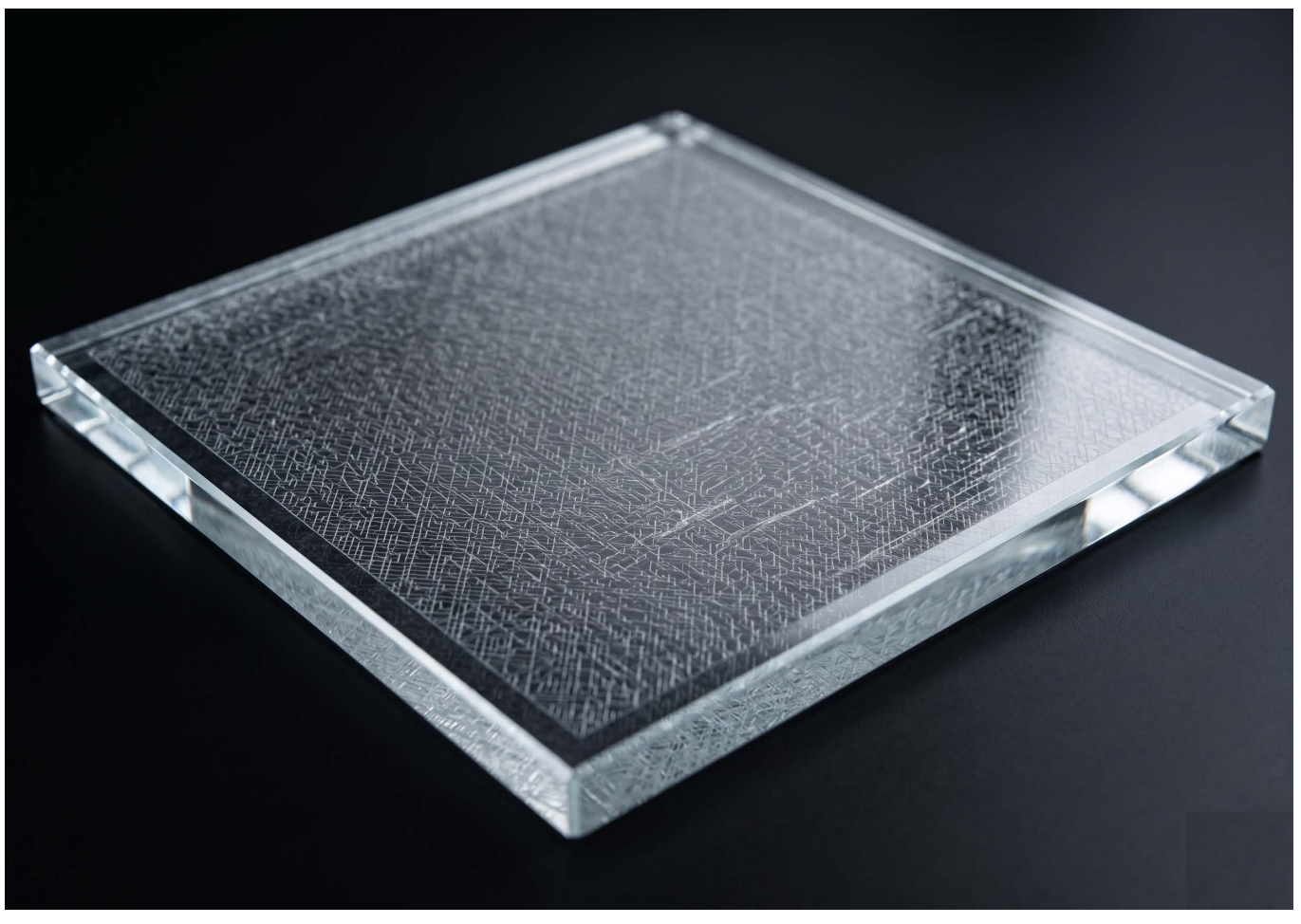
- Five strength / temperature grades
- Conductivity below still air at high temperature
- Reduces insulation thickness by 4×
- Non-combustible A1 classification
- Multiple covering options
- Wide range of sheet sizes and thicknesses

APPLICATIONS

- Furnace back-up insulation
- Steel and aluminium industry
- Glass, cement and ceramics industry
- Petrochemical industry
- Fuel cells and thermal batteries
- Pipework backup insulation

TECHNICAL PROPERTIES · 5 GRADES

Property	FSMP 1200	FSMP 1000S	FSMP 1000T	FSMP 900AL	FSMP 1260HD
Strength	High	Medium	High	Low	Very High
Colour	Light Grey	Light Grey	Light Brown	Light Grey	Light Grey
Density kg/m³	300–320	280–300	320	240–280	360–480
Classification temperature °C	1,200	1,050	1,150	900	1,260
Compressive strength @ 10 % MPa	0.33	0.32	0.34	0.32	0.55
THERMAL CONDUCTIVITY (W/M·K)					
at 200 °C	0.023	0.022	0.021	0.022	0.032
at 400 °C	0.024	0.023	0.022	0.025	0.038
at 600 °C	0.030	0.028	0.028	0.032	0.045
at 800 °C	0.032	0.031	0.031	0.038	0.062
SIZES					
Length mm	250, 300, 500, 610, 1,000, 1,100, 1,200				
Thickness mm	5–100				



FSMP-HEC · 800–1260

Microporous Ceramic-Cloth Panel

Five grades — HEC 1260 · 1100S · 1100T · 800 · 1200HD — high-temperature glass-cloth covered

FSMP-HEC are microporous panels covered with high-temperature resistant glass cloth for longer life, easy handling and reduced heat loss in internal and external insulation. Fumed-silica core with multi-grade covering for furnace, turbine, pipe insulation, tunnel duct work and cable protection.

CLASSIFICATION TEMP.	Λ @ 400 °C	FIRE CLASSIFICATION
800 – 1,260 °C	**0.022 – 0.038** W/m·K	**Class A1** Non-combustible

FEATURES & ADVANTAGES

- Glass-cloth covering for handling and durability
- Conductivity below still air at high temperature
- Thin profile saves space
- Reduces insulation thickness by 4×
- Non-combustible A1 classification
- Wide range of covering and thickness options

APPLICATIONS

- Furnace, turbine and pipe insulation
- Tunnel duct and roof/wall/door insulation
- Cable protection heat shields
- Concentrated solar thermal power
- Glass, cement and ceramics industry
- Cable trays and busbar protection

TECHNICAL PROPERTIES · 5 GRADES

Property	HEC 1260	HEC 1100S	HEC 1100T	HEC 800	HEC 1200HD
Strength	High	Medium	High	Low	Very High
Density kg/m³	280–320	240–260	320	220–260	360–480
Classification temperature °C	1,200	1,050	1,100	800	1,200
Compressive strength @ 10 % MPa	0.33	0.32	0.34	0.32	0.55
THERMAL CONDUCTIVITY (W/M·K)					
at 200 °C	0.023	0.022	0.021	0.022	0.032
at 400 °C	0.024	0.024	0.022	0.025	0.038
at 800 °C	0.029	0.033	0.031	0.038	0.062

FSMP-HY · 900–1200

Hydrophobic Microporous Board

Five grades — HY 1200 · 1000S · 1100T · 900 · 1200HD — water-repellent microporous panel

Wedge water-repellent microporous insulation panels are hydrophobic-grade boards for applications where contact with liquid water or condensation is possible. Designed for back-up of refractory castable or pipes where water penetration risk is high. Free of organic binders and environmentally friendly.

CLASSIFICATION TEMP.	Λ @ 400 °C	HYDROPHOBIC
900 – 1,200 °C	**0.022 – 0.038** W/m·K	**Yes** Free of organic binders

FEATURES & ADVANTAGES

- Hydrophobic base — very high water repellency
- Conductivity below still air at high temperature
- Thin insulation saves space
- Reduces insulation thickness by 4×
- Non-combustible A1 classification
- Environmentally friendly, free of organic binders

APPLICATIONS

- Furnace back-up insulation behind castable refractory
- Pipework where water penetration risk is high
- Steel and aluminium industry
- Glass, cement and ceramics industry
- Petrochemical industry
- Fuel cells and thermal batteries

TECHNICAL PROPERTIES · 5 GRADES

Property	HY 1200	HY 1000S	HY 1100T	HY 900	HY 1200HD
Strength	High	Medium	High	Low	Very High
Colour	White	White	White	White	White
Density kg/m³	280–320	260–300	320	235–265	360–480
Classification temperature °C	1,200	1,050	1,100	900	1,200
Compressive strength @ 10 % MPa	0.33	0.32	0.34	0.32	0.55
THERMAL CONDUCTIVITY (W/M·K)					
at 200 °C	0.023	0.022	0.021	0.022	0.032
at 400 °C	0.024	0.024	0.022	0.025	0.038
at 800 °C	0.029	0.034	0.031	0.038	0.062

MS · 900 – 1200HD

Slim MicroSilica Insulation Boards

Five grades — MS 1200 · 1000S · 1000T · 900 · 1200HD — high-density microporous boards

MicroSilica is high-density microporous insulation board for furnace back-up insulation. Manufactured by mixing fumed-silica agglomerates with opacifiers and filaments at very specific pressures, the boards deliver the lowest possible heat loss through all transfer modes — conduction, convection, radiation and gaseous conduction.

CLASSIFICATION TEMP.	Λ @ 400 °C	FIRE CLASSIFICATION
900 – 1,200 °C	**0.022 – 0.038** W/m·K	**Class A1** Non-combustible

FEATURES & ADVANTAGES

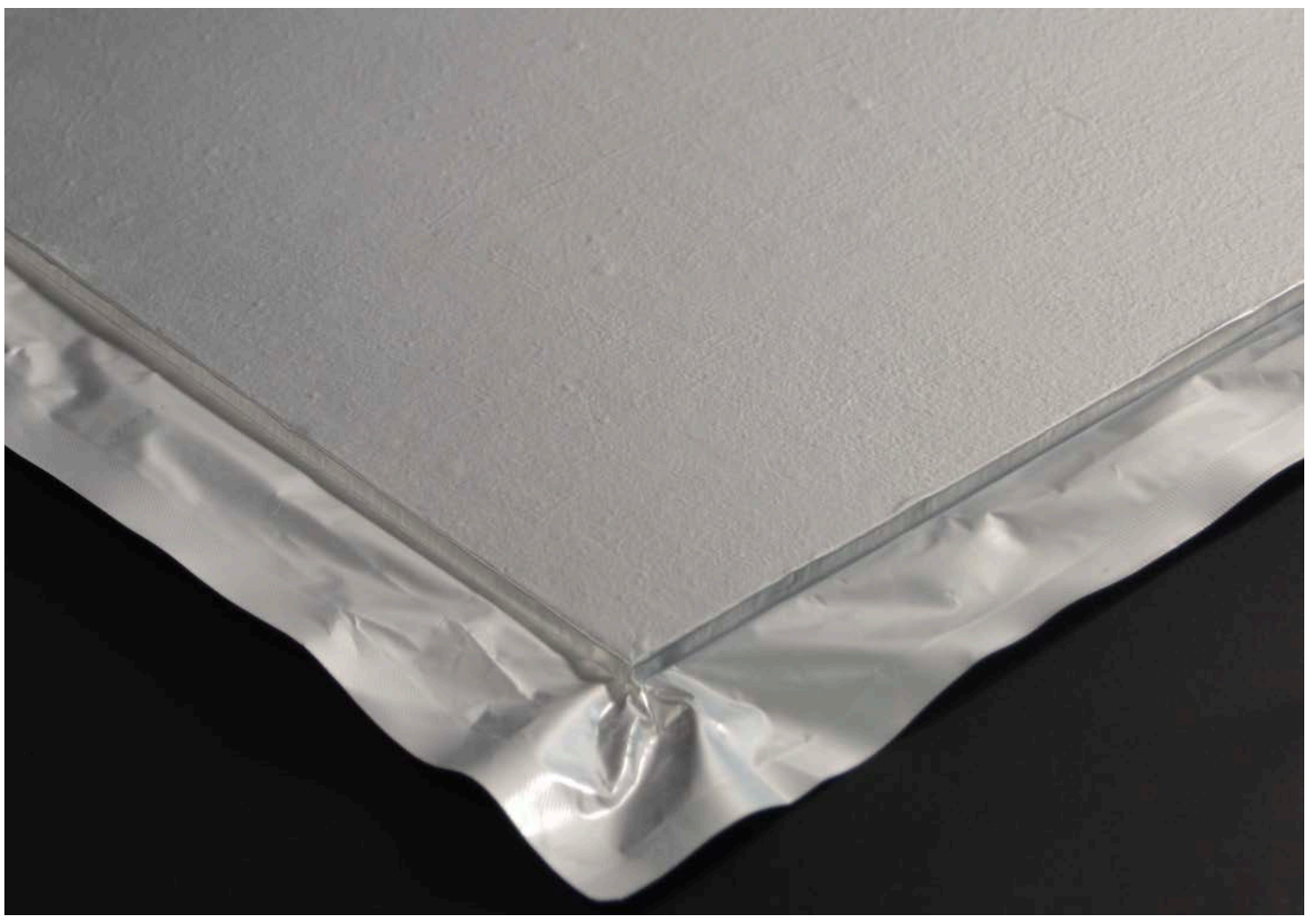
- Highest-possible porosity in the FSMP range
- Conductivity below still-air at high temperature
- Thin profile — reduces insulation thickness by 4×
- Reduced heat loss and lower shell temperatures
- Energy cost savings and productivity gains
- Multiple covering options

APPLICATIONS

- Furnace back-up insulation
- Steel and aluminium industry
- Glass, cement and ceramics industry
- Petrochemical industry
- Fuel cells and thermal-battery insulation
- Industrial kiln and reformer lining

TECHNICAL PROPERTIES · 5 GRADES

Property	MS 1200	MS 1000S	MS 1000T	MS 900	MS 1200HD
Strength	High	Medium	High	Low	Very High
Colour	Grey	Grey	Brown	Grey	Grey
Density kg/m³	280–320	280–300	320	240–280	360–480
Classification temperature °C	1,200	1,000	1,000	900	1,200
Compressive strength @ 10 % MPa	0.33	0.32	0.34	0.32	0.55
THERMAL CONDUCTIVITY (W/M·K)					
at 200 °C	0.023	0.022	0.021	0.022	0.032
at 400 °C	0.024	0.023	0.022	0.025	0.038
at 600 °C	0.026	0.027	0.028	0.032	0.045
at 800 °C	0.029	0.034	0.031	0.038	0.062



FAMILY 05 — COLD STORAGE & BUILDING

Cold Storage & Building Materials

Foam glass, perlite, PIR/PU foam, mineral wool, vermiculite, vacuum panels, XPS and PET acoustic boards — for cryogenic storage, cold-chain, façades and fire-rated building envelopes.

TEMPERATURE RANGE	CONDUCTIVITY	PRODUCTS	STANDARDS
−268 → 1,200 °C	**0.0019 → 0.18 W/m·K**	**13**	**ASTM · GB · EN 13501-1**

IN THIS FAMILY

Wedge-FG · 11 / 16

Cellular Foam Glass Insulation

Two grades — FG11 · FG16 — sealed-cell glass insulation for cryogenic to high-temperature service

Wedge FG11 and FG16 are cellular foam-glass insulation made of crushed glass and foaming agent, heated to create sealed-cell glass bubbles. Excellent for cryogenic to high-temperature applications, non-combustible Class A, naturally moisture-resistant and pest-resistant — for industrial cold storage, cryogenic tanks and high-temperature roofing.

SERVICE TEMPERATURE	λ	COMBUSTIBILITY
−268 → +480 °C	**0.04 – 0.05** W/m·K	**Class A** Non-combustible

FEATURES & ADVANTAGES

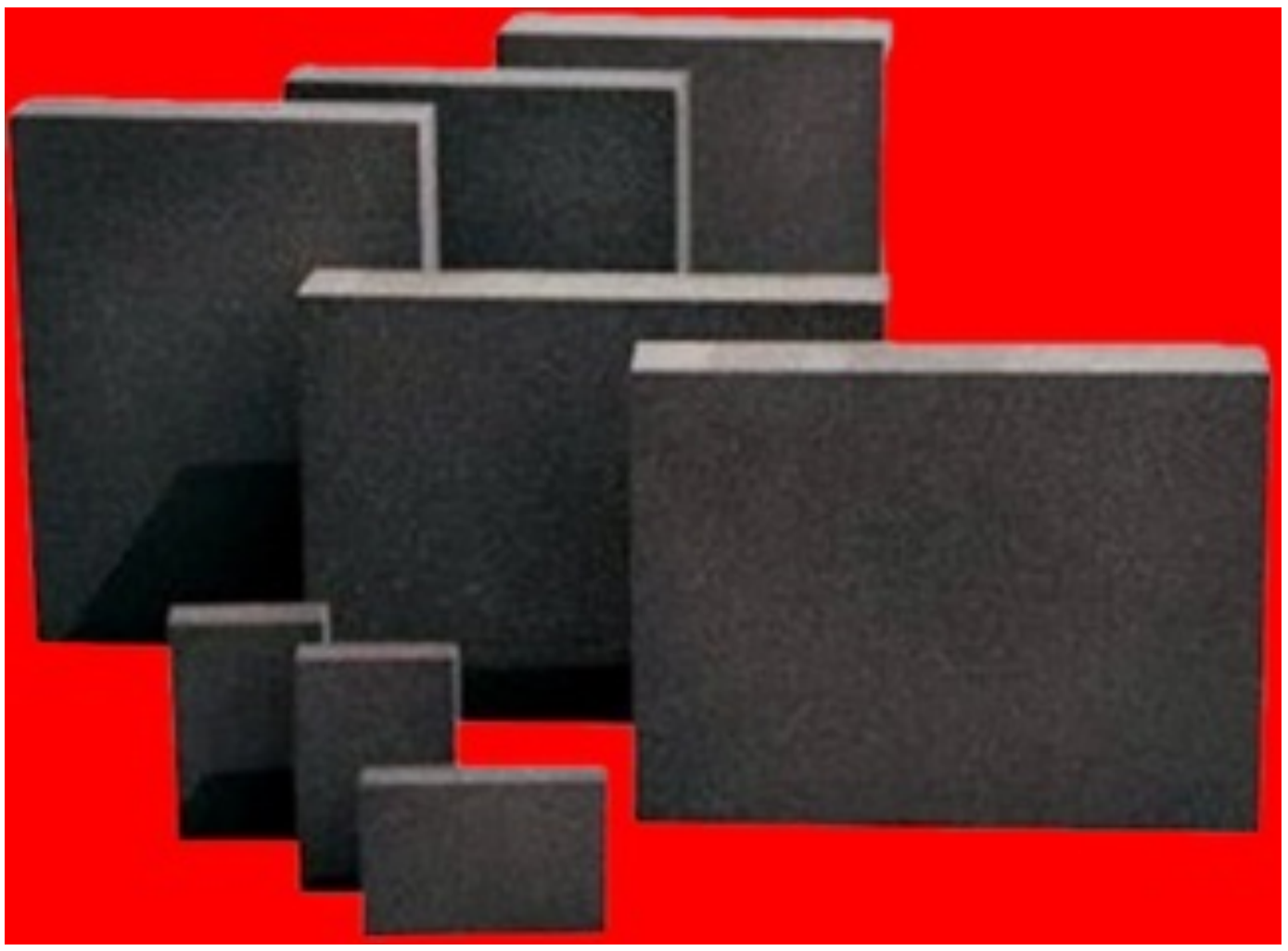
- Cryogenic capability to −268 °C
- Non-combustible Class A — no toxic fumes
- Inherently moisture-resistant — no water absorption
- Resistant to most chemicals; non-corrosive
- Pest- and rodent-resistant
- Decades-long service life without degradation

APPLICATIONS

- Cryogenic vessel and tank insulation
- Industrial cold-storage roof and wall
- Below-grade and buried pipe insulation
- Building façade and roof thermal upgrades
- Chemical-resistant industrial insulation
- Fire-protection and CUI-resistant lining

TECHNICAL PROPERTIES · 2 GRADES

Property	FG16	FG11
Service temperature °C	−268 / +480	−268 / +480
Density kg/m³	160	115
Thermal conductivity W/m·K	0.05	0.04
Compressive strength MPa	0.7	0.62
Flexural strength MPa	≥ 0.5	≥ 0.28
Water vapour permeability ng/Pa·m·s	≤ 0.05	≤ 0.07
Water absorption by volume %	≤ 0.5	≤ 0.5
Combustibility	Class A	Class A



W-Pearl · 220 – 350

Perlite Insulation Boards & Pipe Sections

Three grades — Pearl 220 · 250 · 350 — waterproof expanded perlite boards

Wedge Perlite insulation boards are waterproof boards made of expanded perlite aggregate with waterproofing agent and binder, pressure-formed and dried. Inorganic, neutral pH, asbestos-free, biologically stable — excellent thermal insulation from cryogenic −190 °C to refractory 650 °C. Fire-proof, rot-proof, damp-proof and sound-proof.

SERVICE RANGE	Λ @ 100 °C	HYDROPHOBICITY
−190 → +650 °C	**0.062 – 0.067** W/m·K	**99 – 100** %

FEATURES & ADVANTAGES

- Cryogenic capability to −190 °C
- Lightweight with very low bulk density
- Extremely high hydrophobicity (99–100 %)
- Low thermal conductivity
- Fire-proof, rot-proof, damp-proof, sound-proof
- Corrosion-under-insulation (CUI) resistant

APPLICATIONS

- High-temperature insulation and heat protection
- Cryogenic LNG / LPG vessel insulation
- Fire-proofing and sound-proofing in buildings
- Swimming pools and cold-storage walls
- Steel and foundry hot-topping insulation
- Hydrophobic insulating aggregate

TECHNICAL PROPERTIES · 3 GRADES

Property	W-Pearl220	W-Pearl250	W-Pearl350
Colour	White	White	White
Max service temperature °C	650	650	650
Min service temperature °C	−190	−190	−190
Bulk density kg/m³	220	250	350
Hydrophobicity %	99–100	99–100	99–100
Cold compressive strength MPa	0.45	0.55	0.55
Flexural strength MPa	0.25	0.30	0.30
THERMAL CONDUCTIVITY (W/M·K)			
at 50 °C	0.059	0.060	0.062
at 100 °C	0.062	0.065	0.067
at 200 °C	0.078	0.081	0.084

WedgePIR · 45 / 50

Rigid Polyisocyanurate PIR Boards

Two grades — PIR-45 · PIR-50 — rigid PIR for cold-storage walls and pre-insulated ducting

WedgePIR boards are rigid high-performance polyisocyanurate insulation boards. Used for roof and wall insulation in chilled-water tanks, cold storage, and as pre-insulated duct panels for HVAC. High thermal performance, low water absorption and oxygen index ≥ 30 for fire safety.

SERVICE TEMPERATURE	λ AT AMBIENT	FIRE REACTION
−196 → +120 °C	**≤ 0.022** W/m·K	**Class B1** Oxygen Index ≥ 30

FEATURES & ADVANTAGES

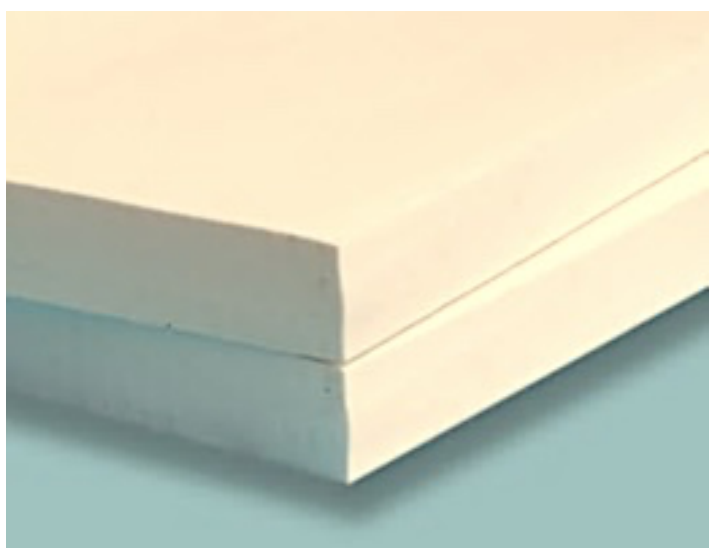
- Cryogenic service to −196 °C
- Closed-cell content > 90 %
- Water absorption ≤ 1 %
- High compressive strength up to 200 kPa
- Oxygen Index ≥ 30 — Class B1 fire
- Flame spread ≤ 25 per ASTM E84

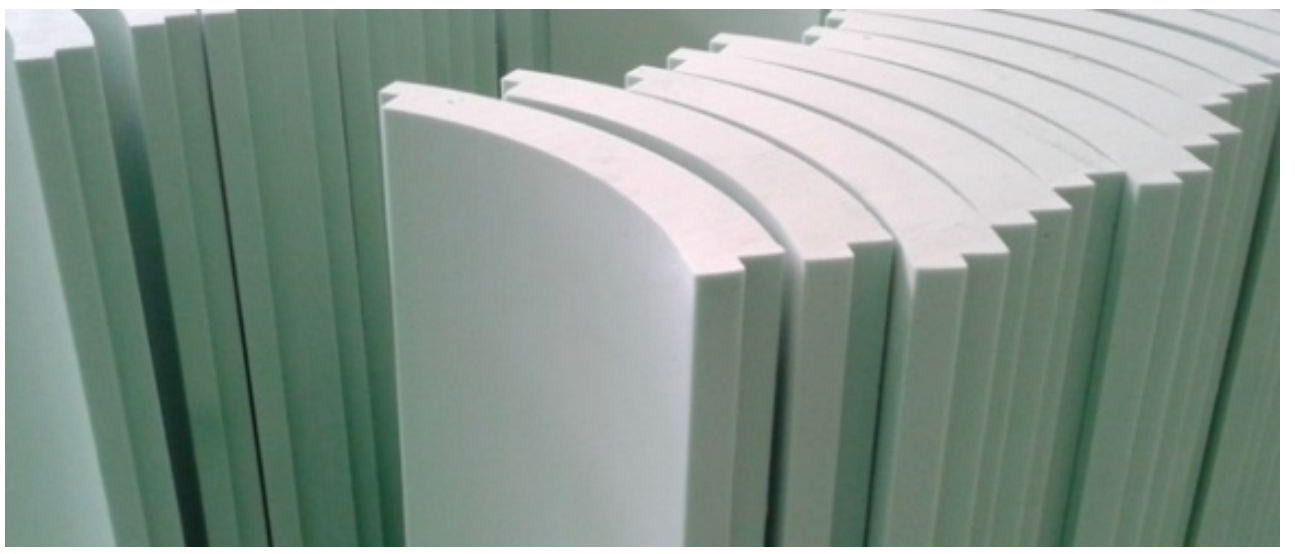
APPLICATIONS

- Cold-storage wall and roof insulation
- Chilled-water and brine tank insulation
- Pre-insulated duct panels for HVAC
- Central air-conditioning in hospitals, hotels, malls
- Airport, stadium and large-volume HVAC
- Industrial cryogenic vessel insulation

TECHNICAL PROPERTIES · 2 GRADES

Property	PIR-45	PIR-50
Density kg/m³	40–45	≥ 50
Thermal conductivity (ambient) W/m·K	≤ 0.022	≤ 0.022
Water vapour permeability ng/Pa·m·s	≤ 5.0	≤ 5.0
Water absorption %	≤ 1	≤ 1
Closed-cell content %	> 90	> 90
Compressive strength kPa	≥ 150	≥ 200
Tensile strength kPa	≥ 320	≥ 320
Oxygen index	≥ 30	≥ 30
Fire reaction	Class B1	Class B1
Service temperature °C	−196 / +120	−196 / +120





W-PUF50

Rigid Polyurethane PU Foam Board

Single grade — rigid PU foam for cryogenic thermal insulation

Rigid polyurethane foam is a specialised cryogenic insulation material made from polyether polyols and isocyanate with flame retardant, foaming agent and stabiliser. High closed-cell content rate and low water absorption — applied to cryogenic thermal insulation in chemical, petroleum and ethylene industries.

SERVICE TEMPERATURE	λ @ 25 °C	COMPRESSIVE STRENGTH
−80 ⟶ +100 °C	**≤ 0.023** W/m·K	**≥ 200** kPa

FEATURES & ADVANTAGES

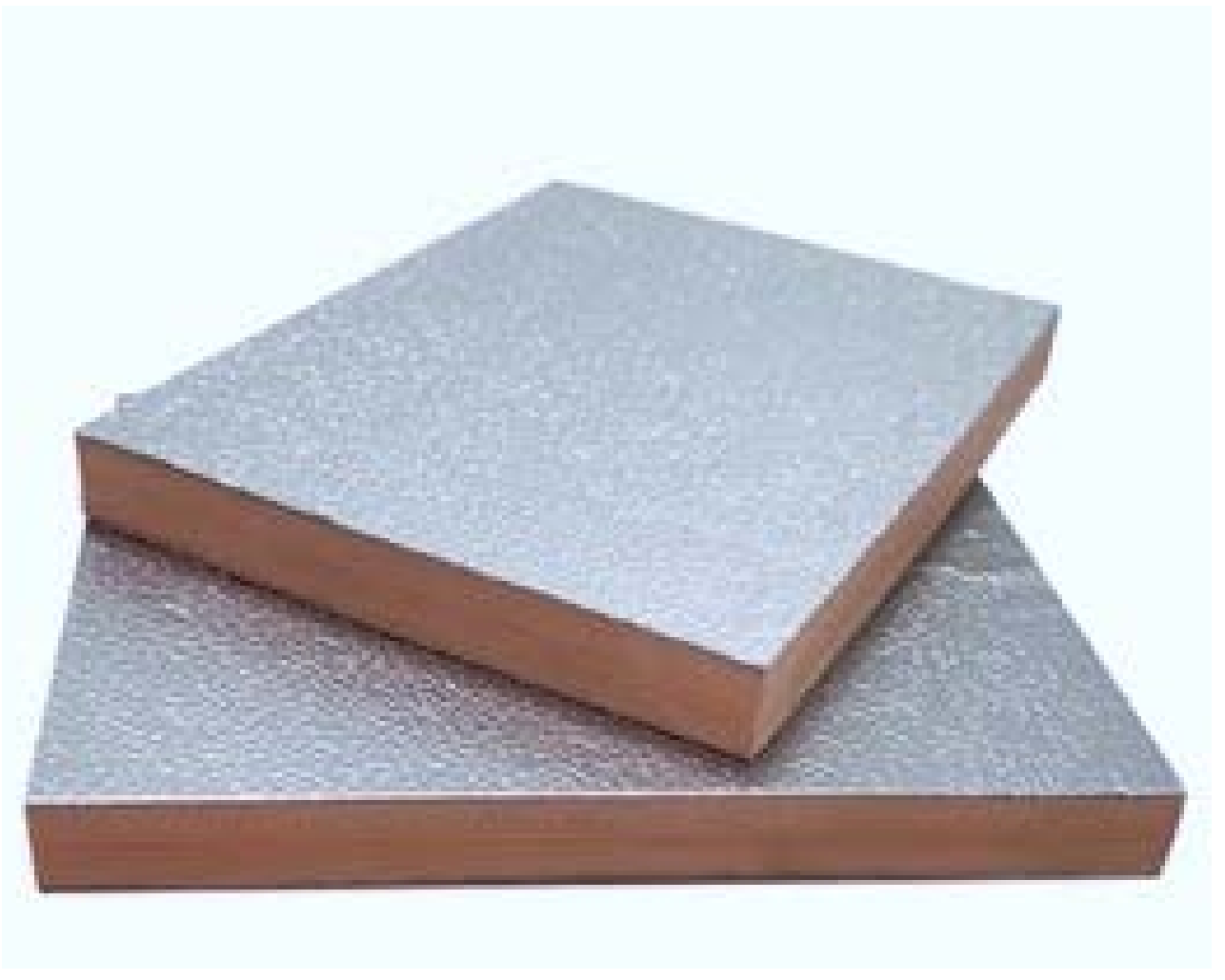
- Thermosetting material with high fire-resistance
- Low thermal conductivity — excellent cold insulation
- Fluorine-free, environment-friendly
- Anti-corrosive and anti-mould
- High mechanical strength and dimensional stability
- Can be prefabricated or sprayed on site

APPLICATIONS

- Petroleum industry vessels and piping
- Chemical and ethylene industries
- Cold storages and refrigeration plant
- Commercial and residential building insulation
- Cryogenic transfer pipework
- Pre-fabricated shape segments and field foaming

TECHNICAL PROPERTIES

Property	Value
Density (room temperature) kg/m³	≥ 50
Thermal conductivity @ 25 °C W/m·K	≤ 0.023
Water absorption %	≤ 5
Compressive strength kPa	≥ 200
Tensile strength kPa	≥ 200
Oxygen index	≥ 30
Service temperature °C	−80 / +100
STANDARD SIZES	
Length × Width mm	1,000 × 500
Thickness mm	10–100



WedgeMW · 40 – 200

Mineral Wool Insulation

Five grades — MW 40 · 60 · 100 · 150 · 200 — densities for thermal & acoustic insulation

Wedge mineral wool insulation offers thermal performance, fire safety, sound absorption and moisture resistance for construction and industrial applications. Five density grades cover acoustic-only through to dense load-bearing structural use, all Class A1 non-combustible with NRC ≥ 0.45.

SERVICE TEMPERATURE	Λ @ 25 °C	FIRE CLASSIFICATION
Up to 750 °C max	**0.036** W/m·K	**Class A1** Non-combustible

FEATURES & ADVANTAGES

- Five density grades from 45 to 220 kg/m³
- Non-combustible Class A1 fire performance
- Melting point > 1,000 °C
- Moisture absorption < 1 %; NRC ≥ 0.45 acoustic
- Shot content ≤ 7 %; fibre diameter ≤ 6 µm
- No formaldehyde, no chemical reactions

APPLICATIONS

- Building thermal and acoustic insulation
- Industrial process pipe and equipment insulation
- HVAC duct lining for thermal & acoustic
- Fire-rated partition walls and floors
- Marine and offshore insulation
- Acoustic absorption panels

TECHNICAL PROPERTIES · 5 GRADES

Property	MW 40	MW 60	MW 100	MW 150	MW 200
Density kg/m³	45–48	60–65	96–100	150–160	180–220
Working temperature °C	650	650	650	650	650
Max use temperature °C	750	750	750	750	750
λ @ 25 °C W/m·K	0.036	0.036	0.036	0.036	0.036
Shot content (> 0.25 mm) %	≤ 7.0	≤ 7.0	≤ 7.0	≤ 7.0	≤ 7.0
Compression strength kPa	55	55	55	55	55
Tensile strength kPa	21	21	21	21	21
Fire class	A1	A1	A1	A1	A1
Moisture absorption % wt	< 1	< 1	< 1	< 1	< 1
Noise reduction coefficient	≥ 0.45	≥ 0.45	≥ 0.45	≥ 0.45	≥ 0.45

HDRW · 850

High Density Mineral Wool Boards

Single grade — refractory-grade rigid mineral wool board for fire & furnace applications

Wedge HDRW 850 are refractory-grade rigid mineral-wool boards bonded with high-temperature clays for fire-door, heat-shield and furnace backup duty. High compressive strength, high electrical resistance and 60–120 minute fire rating depending on thickness.

CLASSIFICATION TEMP.	Λ @ 600 °C	FIRE RATING @ 10 MM
850 °C	0.11 W/m·K	120 minutes

FEATURES & ADVANTAGES

- Strong rigid boards with high compressive strength
- High-temperature resistance up to 850 °C
- Very low thermal conductivity at high temperatures
- High electrical resistance at elevated temperature
- Easy to cut, laminate and punch
- Wet-mouldable for pipe insulation

APPLICATIONS

- Fire-rated doors and lift doors
- Heat-shield and thermal protection
- Fire-protection systems
- Lime kiln and cement kiln insulation
- Boiler, furnace, dryer and oven insulation
- Refractory insulation expansion joints

TECHNICAL PROPERTIES

Property	Value
Colour	Light Brown
Classification temperature °C	850
Density kg/m³	950
THERMAL CONDUCTIVITY (W/M·K)	
at 400 °C	0.10
at 600 °C	0.11
at 800 °C	0.12
MECHANICAL & FIRE	
Fire resistance @ 10 mm min	120
Fire resistance @ 5 mm min	60
Tensile strength MPa	3.5
Shrinkage @ 1,000 °C %	2
Compression @ 70 kg/cm²	15

LMW · Loose

Loose Mineral Wool

Single grade — blown-in / poured loose-fill mineral wool insulation

Loose mineral wool is a blown-in or poured insulation conforming to the cavity shape — ideal for attics with irregular spaces or retrofitting existing structures. Hydrophobic, non-combustible, with good acoustic absorption and made from natural basalt or slag — recyclable at end of life.

MELTING POINT	FIBRE DIAMETER	BULK DENSITY
> 750 °C	**3.5 ± 0.5** µm	**≤ 200** kg/m³

FEATURES & ADVANTAGES

- Blown or poured installation in confined spaces
- Conforms to cavity shape — effective coverage
- Non-combustible — slows flame spread
- Good acoustic insulation between rooms
- Hydrophobic — repels moisture, prevents mould
- Made from natural basalt or slag — recyclable

APPLICATIONS

- Attic and roof-void insulation
- Retrofitting of existing walls and floors
- Acoustic dampening between floors
- Hard-to-reach cavity fill
- Industrial pipe-trace filling
- Acoustic absorption in plant rooms

TECHNICAL PROPERTIES

Property	Value
Colour	Off-white
Water content %	< 1.0
Shot content (> 0.25 mm) %	≤ 5.0
Particle size (12–25 mm) %	≥ 60
Particle size (< 6 mm) %	< 10
Bulk density kg/m³	≤ 200
Average fibre diameter µm	3.5 ± 0.5
Melting point °C	> 750
Bale weight kg	25 ± 0.5

Syndanio · H91–HD900

Cement Silicate Engineering Boards

Seven grades — H91-WI · H91-WUK · L21 · HD280 · HDT800 · HD900 · FP1000

Syndanio boards are high-strength, machinable engineering boards for demanding heat and electrical insulation in induction furnaces, billet-heater boxes, oven cladding, cathode support pads and structural insulation. H91 is the industry standard for high-temperature insulation and structural insulation boards.

OPERATING TEMP.	Λ @ 100 °C	COMPRESSIVE STRENGTH
250 – 1,000 °C	**0.18 – 0.5** W/m·K	**14 – 96** MPa

FEATURES & ADVANTAGES

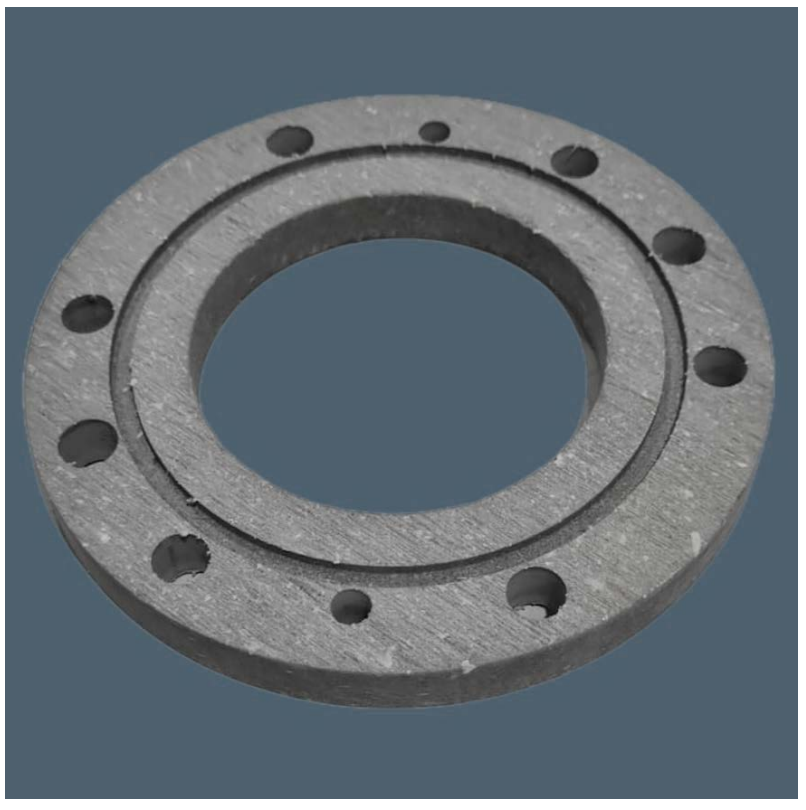
- Up to 96 MPa compressive strength — true engineering board
- Machinable to precision tolerances
- High electrical strength up to 50 kV/mm
- Multi-grade range for varied operating temperature
- Asbestos-free mineral construction
- Available in 7 grades from 250 °C to 1,200 °C

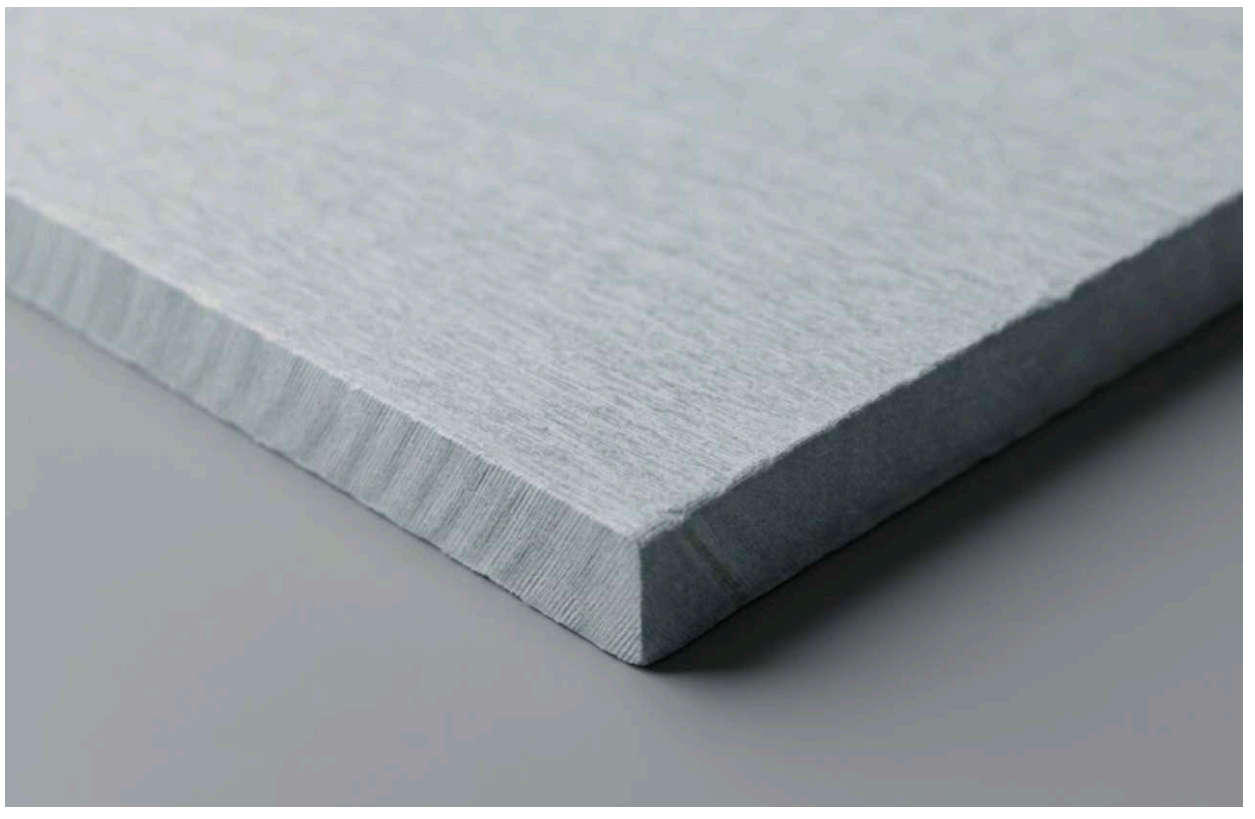
APPLICATIONS

- Induction-furnace billet-heater boxes
- Oven cladding and structural insulation
- Cathode support pads for electrolytic cells
- Heat and electrical insulation in smelters
- Apparatus construction structural parts
- Press platens and laminating tooling

TECHNICAL PROPERTIES · 7 GRADES

Property	H91-WI	H91-WUK	L21	HD 280	HDT800	HD900	FP1000
Density kg/m³	1,750	1,610	1,730	1,000	1,750	860	1,000
Operating temperature °C	385	700	250	1,000	800	1,000	650
Short-term temperature °C	850	850	350	1,400	1,100	1,200	1,250
THERMAL CONDUCTIVITY (W/M·K)							
at 100 °C	0.5	0.5	0.5	0.18	0.37	0.22	0.18
at 150 °C	—	—	—	0.26	0.42	0.24	0.27
at 300 °C	—	—	—	0.28	0.47	0.26	0.38
MECHANICAL							
Compressive strength MPa	85	96	85	28	30	19	14
Flexural strength MPa	25	30	28	10	32	7	8
Linear shrinkage @ 350 °C %	0.4	0.4	0.21	—	0.18	—	0.25





VC · 450 – 900

Vermiculite Boards & Designs

Four grades — VC450 · VC600 · VC700 · VC900 — exfoliated vermiculite boards

Wedge W-VCL vermiculite insulating boards are manufactured from exfoliated vermiculite and inorganic binders — free of asbestos and organic substances. Aluminium-magnesium layer silicate bloated to ultra-lightweight granulate through heating, then compression-moulded to boards, bricks and shapes for industrial furnace construction.

SERVICE TEMPERATURE	Λ @ 200 °C	COMPRESSIVE STRENGTH
1,100 – 1,150 °C	**0.14 – 0.19** W/m·K	**2.5 – 6.3** MPa

FEATURES & ADVANTAGES

- High thermal-shock resistance — hot-face capable
- Fireproof, non-combustible A1
- No smoke nuisance during heating
- Low thermal conductivity; high electrical resistance
- Resistant to CO and CH_4 atmosphere
- Non-wetting to fluid aluminium, kryolite and fluoride

APPLICATIONS

- Industrial furnace construction for thermal insulation
- Hot-face directly in the furnace and backup insulation
- Aluminium melting furnace, steel ladle, tundish
- Torpedo-ladle and glass-melting backup insulation
- Night storage heaters, boilers, hearths
- Fireplace linings and hot stoves

TECHNICAL PROPERTIES · 4 GRADES

Property	VC450	VC600	VC700	VC900
Colour	Brown	Brown	Brown	White / Brown
Service temperature °C	1,100	1,100	1,100	1,150
Bulk density kg/m³	450–475	600	700–800	900
Porosity %	81	76	74	57
Cold compressive strength MPa	2.5	4.2	4.5	6.3
Thermal shock resistance cycles	> 10	> 10	> 10	> 8
Flexural strength MPa	0.6–0.8	1.6	2.0	2.1
THERMAL CONDUCTIVITY (W/M·K)				
at 25 °C	0.048	0.056	0.058	0.056
at 200 °C	0.14	0.16	0.19	0.18
at 400 °C	0.17	0.18	0.20	0.19
at 800 °C	0.21	0.22	0.22	0.23

MagSil · Vermiculite

Fire-Resistant Vermiculite Boards

Compression-moulded vermiculite + binder for fire-rated wall, door & chimney lining

Wedge MagSil fire-resistant vermiculite boards are compressed expanded-vermiculite with a special binder that enhances fire resistance. Withstand up to 1,200 °C with fire ratings from 60 to 240 minutes depending on thickness. Used as fire barriers for fireplaces, chimneys, wood stoves and other high-temperature wall constructions.

SERVICE TEMPERATURE	FIRE RATING	STABILITY
Up to 1,200 °C	**60 – 240** minutes	**Chemically stable** Lightweight

FEATURES & ADVANTAGES

- High-temperature resistance up to 1,200 °C+
- Fire rating 60–240 minutes by thickness
- Thermal insulation plus structural fire protection
- Lightweight despite high temperature rating
- Chemically stable and corrosion-resistant
- Customisable sizes and thicknesses

APPLICATIONS

- Fireplace linings and inserts
- Wood-stove and pellet-stove surrounds
- Chimney and flue linings
- Fire-rated wall partitions
- Heat-shield for combustion appliances
- Decorative fire-protection panels

TECHNICAL PROPERTIES

Property	Value
Service temperature °C	Up to 1,200
Fire rating range minutes	60 / 90 / 120 / 180 / 240
Construction	Expanded vermiculite + binder
Fire resistance role	Barrier — prevents flame & heat spread
Chemical stability	Corrosion-resistant
Customisation	Sizes and thicknesses to specification
Asbestos / organics	Free of asbestos and organic substances

WedgeVac · VIP

High Vacuum Insulation Panels

Four grades — FSKW · PSV · STFG · VQFS — microporous fumed-silica core, vacuum-sealed

WedgeVac panels are very high performance vacuum insulation panels built around a fire-class A1 fumed-silica core with infrared opacifier, encapsulated in impermeable high gas-barrier film under vacuum. They deliver the lowest practical thermal conductivity of any commercial insulation — down to 0.0019 W/m·K — and the thinnest cross-section for a given R-value. Supplied as ready-to-use, fixed-size panels for refrigeration, thermal packaging, building façades and transportation.

SERVICE TEMPERATURE	Λ AT 10 °C	FIRE CLASSIFICATION
−100 → +100 °C	**0.0019 – 0.0045** W/m·K	**Class A1** Non-combustible core

FEATURES & ADVANTAGES

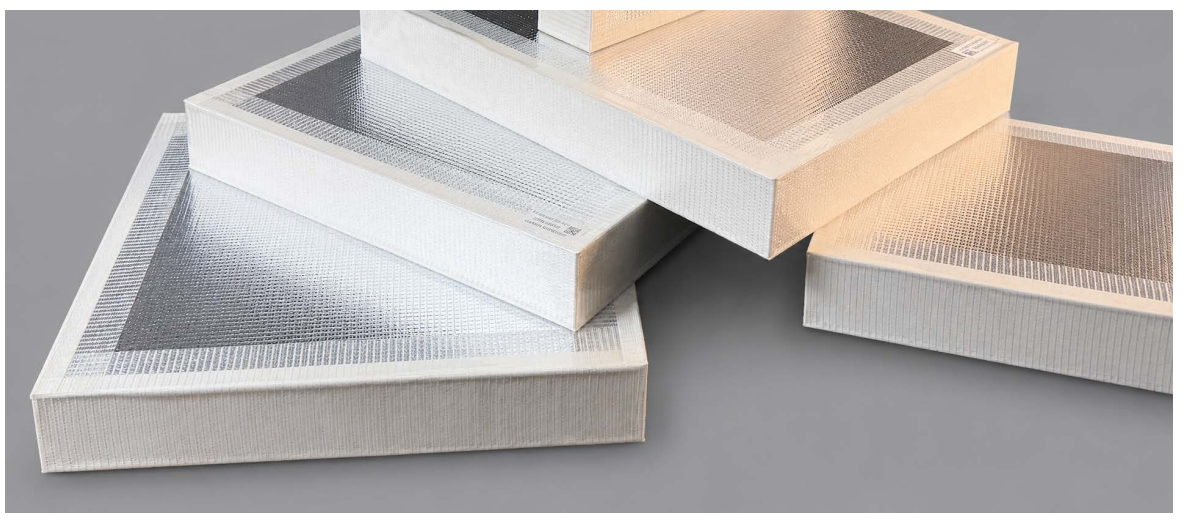
- Highest insulation performance available — λ < 0.004 W/m·K
- R-value 4.8 m²·K/W per 20 mm — 5–10× conventional foam
- Thinnest cross-section reclaims interior & cargo volume
- Lightweight; no respirable fibres; environmentally safe
- Fumed-silica core is fire class A1 non-combustible
- Service life up to 45–60 years in protected installation

APPLICATIONS

- Domestic & commercial refrigerators, freezers, vacuum flasks
- Thermal & medicine cold-chain packaging
- Water boilers, appliances and white goods
- Automotive, rail, marine and aerospace cabins
- Building façades, walls, floor & roof, doors & windows
- Cold rooms, cold storage and pharmaceutical clean rooms

TECHNICAL PROPERTIES · 4 GRADES

Property	FSKW	PSV	STFG	VQFS
Application temperature °C	−100 / +60	−50 / +80	−70 / +80	−75 / +100
Density kg/m³	160–260	160–260	240–300	160–230
λ @ 10 °C W/m·K	0.0045	0.0045	0.0019	0.0035
R-Value @ 25.4 mm m²·K/W	6	6	13	7
R-Value @ 1 in hr·ft²·°F/Btu	32	32	76	41
Compressive strength MPa	0.19	0.15	0.20	0.12
STANDARD SIZES				
Length mm	100–1,500	275–1,100	80–1,800	100–1,500
Width mm	100–1,000	350–700	80–800	100–1,000
Thickness mm	5–50	5–30	4–40	5–50
SERVICE & APPEARANCE				
Insulation performance	High	High	Very High	High
Service life years	45	45	45	45



CCXP · 30 – 70

Wedge XPS Foam Board

Six grades — CCXP 30 · 35 · 36 · 45 · 60 · 70 — closed-cell extruded polystyrene foam

Wedge CCXP foam boards are popular building-grade XPS insulation with high R-value, closed-cell structure for waterproof performance, and resistance to mould, mildew and most chemicals. Minimal thermal expansion ensures long-term insulation integrity in walls, roofs and floors.

SERVICE TEMPERATURE	λ @ 10 °C	COMPRESSIVE STRENGTH
−30 ⟶ +80 °C	**0.028** W/m·K	**200 – 700** kPa

FEATURES & ADVANTAGES

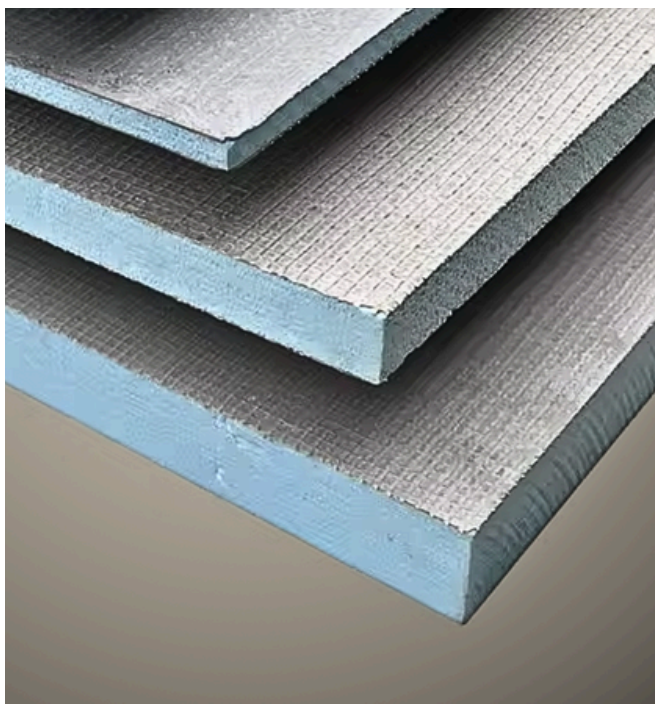
- Closed-cell structure — waterproof and vapour-resistant
- R-Value 5.1 / 5.2 per inch across grade range
- Compressive strength up to 700 kPa for load-bearing duty
- Dimensional stability under temperature cycling
- Resistant to chemicals and solvents
- Mould-, mildew- and rot-resistant

APPLICATIONS

- External wall and roof insulation
- Below-grade and below-slab insulation
- Cold-room and chilled-storage walls
- Floor and basement insulation
- Industrial cold-storage construction
- Refrigerated transport vehicle panels

TECHNICAL PROPERTIES · 6 GRADES

Property	CCXP 30	CCXP 35	CCXP 36	CCXP 45	CCXP 60	CCXP 70
Application temperature °C	−30 / +80	−30 / +80	−30 / +80	−30 / +80	−30 / +80	−30 / +80
λ @ 10 °C W/m·K	0.028	0.028	0.028	0.028	0.028	0.028
Bulk density kg/m³	30	35	37	40	45	48
Compressive strength kPa	200	300	350	450	600	700
Flexural strength kPa	345	400	410	425	525	690
Water absorption %	≤ 0.7	≤ 0.7	≤ 0.7	≤ 0.7	≤ 0.7	≤ 0.7
Limiting oxygen index %	24	24	24	24	24	24
Dimensional stability %	2	1.5	1.5	1	1	1
R-Value per 1 in	R 5.1	R 5.1	R 5.1	R 5.2	R 5.2	R 5.2
STANDARD SIZES						
Thickness mm	6–100 (all grades)					
Length × Width mm	1,200–3,000 × 600–1,200					



WedgeSPP · 1650

PET Acoustic Panels

Single grade — 100 % recycled-PET polyester acoustic absorption panel

Wedge SPP1650 are high-performance PET (Polyethylene Terephthalate) acoustic panels made from recycled plastic bottles. Eco-friendly, lightweight, moisture-resistant and effective at absorbing sound across mid- and high-frequency ranges — ideal for offices, restaurants, studios and other spaces requiring acoustic control.

SOUND ABSORPTION	λ	MATERIAL
NRC 0.8 ISO 354:2003	**0.036** W/m·K	**100 % recycled** PET fibre

FEATURES & ADVANTAGES

- 100 % recycled PET — eco-friendly material
- Mid- to high-frequency sound absorption NRC 0.8
- Lightweight and impact-resistant
- Moisture- and mould-resistant
- Multiple colours, finishes and thicknesses
- Customisable for design aesthetics

APPLICATIONS

- Office acoustic treatment — walls, ceilings, partitions
- Restaurant and café reverberation control
- Recording studios and listening rooms
- Auditoria and lecture-hall acoustic linings
- Open-plan office hush hoods
- Retail and gallery acoustic treatments

TECHNICAL PROPERTIES

Property	Value
Sheet size mm	2,440 × 1,220
Thickness mm	9–45
Core	BS EN 717-1 E0 Class 100 % polyester fibre
Sound absorption (ISO 354:2003)	NRC 0.8
Thermal conductivity W/m·K	0.036
Thermal resistance m²·K/W	0.599
Material source	100 % recycled PET fibres

FAMILY 06 — FABRICS & CLOTHS

High-Temp Fabrics & Cloths

Aluminized, alumina-silica and silica cloths, ropes and textiles — molten-metal splash protection, welding blankets, expansion joints and personnel protection up to 1,260 °C.

TEMPERATURE RANGE	CONDUCTIVITY	PRODUCTS	STANDARDS
550 → 1,260 °C	**—**	**4**	**ISO 9001**

IN THIS FAMILY

AISi · Textile & Rope

Ceramic Fibre Textile & Braided Rope

Six configurations — Round / Square / Twisted × Fiberglass or Stainless Steel reinforcement

Wedge AISi textile is ceramic-fibre yarn manufactured from high-quality spun fibre at 1,260 °C, mechanically twisted for tensile strength. Available with E-glass or stainless-steel reinforcement from 525 Tex to 2,500 Tex in single, two or three plies. Braided into round, square or twisted rope for high-temperature gasket, packing and sealing applications.

CLASSIFICATION TEMP.	MAX SERVICE TEMP.	DENSITY
1,260 °C	**500 – 1,000** °C by reinforcement	**500 – 650** kg/m³

FEATURES & ADVANTAGES

- Round, square and twisted rope formats
- Fiberglass or stainless-steel reinforcement
- 525 Tex to 2,500 Tex yarn weights
- Single, two or three-ply construction
- Asbestos replacement for hot-zone gaskets
- Customisable to specific dimensional requirements

APPLICATIONS

- Wrapping insulation and refractory bandage
- Sealing for furnaces and high-temperature doors
- High-temperature gasket and packing
- Lamp wicks for burner equipment
- Expansion-joint packing
- Asbestos replacement in hot zones

TECHNICAL PROPERTIES · 6 GRADES

Property	R-Rope FG	R-Rope SS	S-Rope FG	S-Rope SS	T-Rope FG	T-Rope SS
Al_2O_3 %	45–46	45–46	45–46	45–46	45–46	45–46
SiO_2 %	52–53	52–53	52–53	52–53	52–53	52–53
$Al_2O_3 + SiO_2$ %	98	98	98	98	98	98
Density kg/m³	500–650	500–650	500–650	500–650	500–650	500–650
Classification temperature °C	1,260	1,260	1,260	1,260	1,260	1,260
Max service temperature °C	500–600	1,000	500–600	1,000	500–600	1,000
Water content %	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1	≤ 1
Organic content %	≤ 18	≤ 18	≤ 18	≤ 18	≤ 18	≤ 18
Reinforcement	Fibreglass	Stainless Steel	Fibreglass	Stainless Steel	Fibreglass	Stainless Steel

AISi · 1000

Aluminized High-Temperature Fabric

Single grade — aluminized molten-metal splash-protection fabric for 1,000 °C short-term

Wedge AlSi1000 aluminized HT fabrics are made of high-temperature fire-resistant yarns in a closed weave — lightweight and durable. Provide molten-metal splash protection; the fabric's aluminized side reflects radiant heat. Continuous service to 550–650 °C, short-term excursion to 1,000 °C.

SHORT-TERM TEMP.	LONG-TERM TEMP.	WEIGHT
1,000 °C	**550 – 650** °C	**1,120** g/m²

FEATURES & ADVANTAGES

- Aluminized face reflects radiant heat
- Closed weave — lightweight and durable
- Molten-metal splash protection
- Non-flammable construction
- Warp tensile strength ≥ 450 N/25 mm
- Weft tensile strength ≥ 325 N/25 mm

APPLICATIONS

- Foundry molten-metal splash protection
- Welding curtains and screens
- Personnel-protection blankets
- Furnace personnel curtains
- Heat-reflective covers and tarps
- Forge-shop fire blankets

TECHNICAL PROPERTIES

Property	Value
Max short-term temperature °C	1,000
Long-term service temperature °C	550–650
Width mm	≥ 1,000
Weight g/m²	1,120
Thickness mm	1.50 ± 0.05
Warp tensile strength N/25 mm	≥ 450
Weft tensile strength N/25 mm	≥ 325
Flammability	Non-flammable

AISi · 1200CT

Aluminium Silica Fibre Cloth

Two grades — AISi 1200CT-FG · AISi 1200CT-SS — fibreglass or stainless-steel reinforced

Wedge AISi1200CT is alumina-silica fibre cloth — the most cost-effective industrial cloth, manufactured from alumina-silica fibre yarn with fibreglass or stainless-steel core for high strength retention at elevated temperatures. Durable and flexible for applications up to 1,200 °C in welding, furnace curtains, aerospace and personnel protection.

CLASSIFICATION TEMP.	DENSITY	THICKNESS RANGE
1,240 °C	500 – 550 kg/m³	1 – 6 mm

FEATURES & ADVANTAGES

- High thermal-shock resistance and heat resistance
- Low thermal conductivity
- Excellent chemical stability
- Non-wetting to molten aluminium
- Easy to cut and machine
- Fibreglass or stainless-steel reinforcement options

APPLICATIONS

- Furnace curtains (entrance, exit barriers)
- Welding blankets and aerospace applications
- Lining cloth for welding and combustion pipes
- Fireproof rolling curtains
- Aircraft and rocket-engine insulation
- Motorsport engine and exhaust insulation
- Semiconductor processing pads
- Hot-glass processing mark / scratch prevention

TECHNICAL PROPERTIES · 2 GRADES

Property	AISi 1200CT-FG	AISi 1200CT-SS
Al_2O_3 %	45–46	45–46
SiO_2 %	52–53	52–53
$Al_2O_3 + SiO_2$ %	98	98
Fibre length mm	75	75
Fibre diameter µm	5.2	5.2
Density kg/m³	500–550	500–550
Classification temperature °C	1,240	1,240
Water content %	≤ 1	≤ 1
Organic content %	≤ 18	≤ 18
Thickness mm	1–6	1–6
Width mm	1,000	1,000
Reinforcement	Fibreglass	Stainless Steel

WSC · 600

E-Glass / High-Silica Cloth

Single grade — 96 % SiO_2 amorphous silica fabric, asbestos-free thermal barrier

Woven SC600 is pure E-glass cloth made from high-silica fabric with 96 % pure SiO_2 amorphous silica fibres — a health-conscious alternative to asbestos and ceramic textiles. Designed to withstand continuous 982 °C with high dielectric strength and corrosion resistance. Widely used for high-temperature insulation, welding blankets, thermal barriers and personnel safety.

CONTINUOUS TEMP.	SIO_2 PURITY	THICKNESS RANGE
982 °C	**96** % amorphous	**0.25 – 1.3** mm

FEATURES & ADVANTAGES

- 96 % pure amorphous SiO_2 — asbestos-free
- Continuous service to 982 °C
- Low thermal conductivity
- High dielectric strength
- High corrosion resistance
- Self-adhesive variant available with HT glue

APPLICATIONS

- High-temperature insulation and heat protection
- Welding blankets and curtains
- Furnace curtains and barriers
- Power generation, shipbuilding, construction
- Welding and metal-processing safety
- Thermocouple insulation wrap
- Flame-resistant barriers
- Thermal-barrier insulation

TECHNICAL PROPERTIES

Property	Value
Continuous service temperature °C	982
SiO_2 purity %	96 amorphous
Thickness mm	0.25–1.3
Roll length m	10 / 30 / 50 (custom)
Commonly used width mm	50–1,200
Adhesive options	Self-adhesive (HT glue) or plain
Dielectric strength	High
Corrosion resistance	High

Wedge India

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Request a Quote / Consultation