

Rigid Insulation Boards

High Strength | Long Life | Low Cost



HSI 1200 | Technical Datasheet

Wedge HSI 1200 are Calcium Silicate based Refractory Insulation Boards made of high quality refractory mineral fibers and calcium silicate bonded with high temperature clays. These insulation boards possess unique combination of properties for various industrial applications in furnace backup insulation, high temperature gasketing & seals.

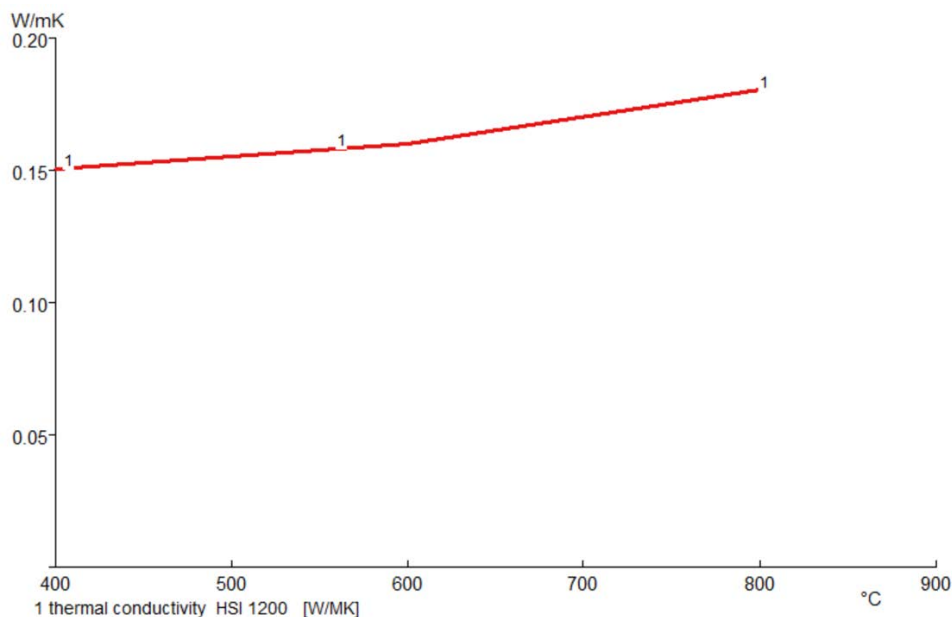
Applications

- Ladle & Tundish Insulation
- Lime Kiln and Cement Kiln Insulation
- High temperature insulation Gaskets
- Boiler & Furnace Insulation
- Oil & Gas Burners Insulation
- Furnace, Dryer, and Oven Insulation
- High temperature Pipe Insulation
- Refractory insulation expansion joints
- Metal clad Gaskets fillers
- Gaskets for centrifugal casting
- Glass rollers as washers on mandrel
- Stainless Steel Plant Rollers Insulation
- Electrical & home appliances insulation gaskets
- Fire Resistant Doors, Lifts, Safes, Cupboards

Features & Benefits

- Very Strong Boards with high compressive strength
- High temperature resistance upto 1200°C
- Low Thermal Conductivity at high temperatures
- High Electrical Resistance at high temperature
- High fire resistance and heat shield properties
- Easy to cut and punch
- Available in moulded pipe section for pipe insulation

Properties	HSI 1200	
Base Materials	Calcium Silicate & Refractory Fibre	
Classification Temperature, °C	1200	
Density, Kg/M3	1000	
Thermal conductivity, W/m.K		
	400 °C	0.15
	600 °C	0.17
	800 °C	0.18
Tensile Strength, Mpa	5	
Flexural Strength, Mpa	6	
Shrinkage % @ 1000 °C	< 1	
Compressive Strength, Mpa	8 - 10	
Loss on Ignition %	7	



HSI 1100 | Technical Datasheet

Wedge HSI 1100 are calcium silicate & wollastonite fibres based boards ideal protection against electrical arcs, used for burner, boiler and dryer gaskets. These boards are made of high quality wollastonite fibres and calcium silicate bonded with high temperature clays. These insulation boards possess unique combination of properties for various industrial applications in furnace backup insulation, high temperature gasketing & seals.

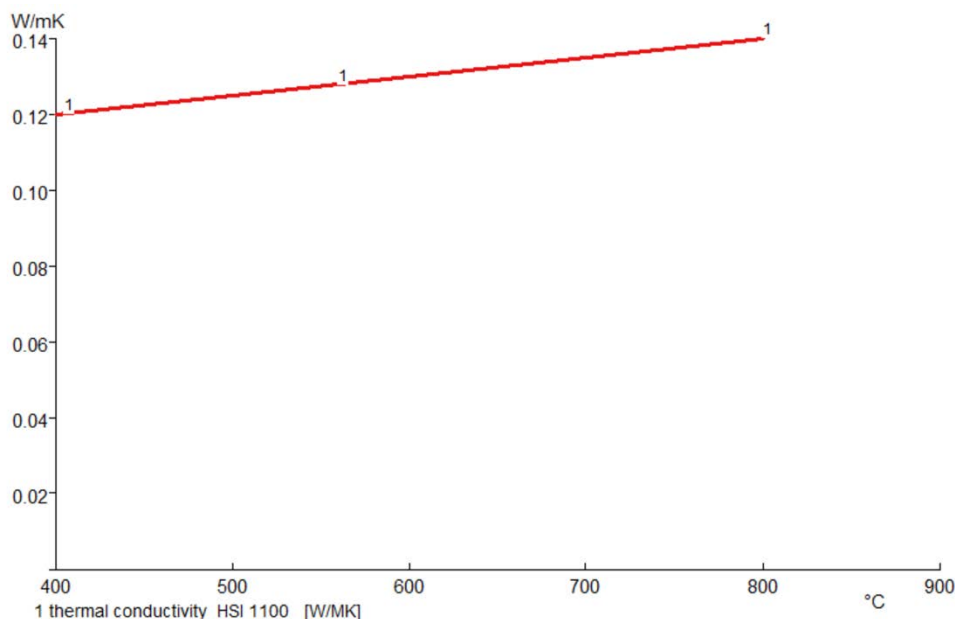
Applications

- Ladle & Tundish Insulation
- Lime Kiln and Cement Kiln Insulation
- High temperature gasket & sealings
- Boiler & Furnace Insulation
- Oil & Gas Burners Insulation
- Furnace, Dryer, and Oven Insulation
- High temperature Pipe Insulation
- Metal clad Gaskets fillers
- Gaskets for centrifugal casting
- Glass rollers as washers on mandrel
- Stainless Steel Plant Rollers Insulation
- Electrical & home appliances insulation gaskets
- Fire Resistant Doors, Lifts, Safes, Cupboards

Features & Benefits

- Very Strong Boards with high compressive strength
- High temperature resistance upto 1100°C
- Low Thermal Conductivity at high temperatures
- High Electrical Resistance at high temperature
- High fire resistance and heat shield properties
- Easy to cut and punch
- Available in moulded pipe section for pipe insulation

Properties	HSI 1100
Base Materials	Wollastonite fibres & Calcium Silicate
Classification Temperature, °C	1100
Density, Kg/M3	1000
Thermal conductivity, W/m.K	
	400 °C
	600 °C
	800 °C
Tensile Strength, Mpa	5
Flexural Strength, Mpa	6
Shrinkage % @ 1000 °C	< 1
Compressive Strength, Mpa	8 - 10
Loss on Ignition %	8



HSI 1000 | Technical Datasheet

Wedge HSI 1000 are calcium silicate & wollastonite fibres based boards ideal for high temperature backup insulation, fire protection, fire doors, electrical home appliances, electrical arcs, furnace backup insulation, high temperature gasketing, duct fire protection, pipe insulation, fire & insulation seals, high temperature electrical insulation, etc.

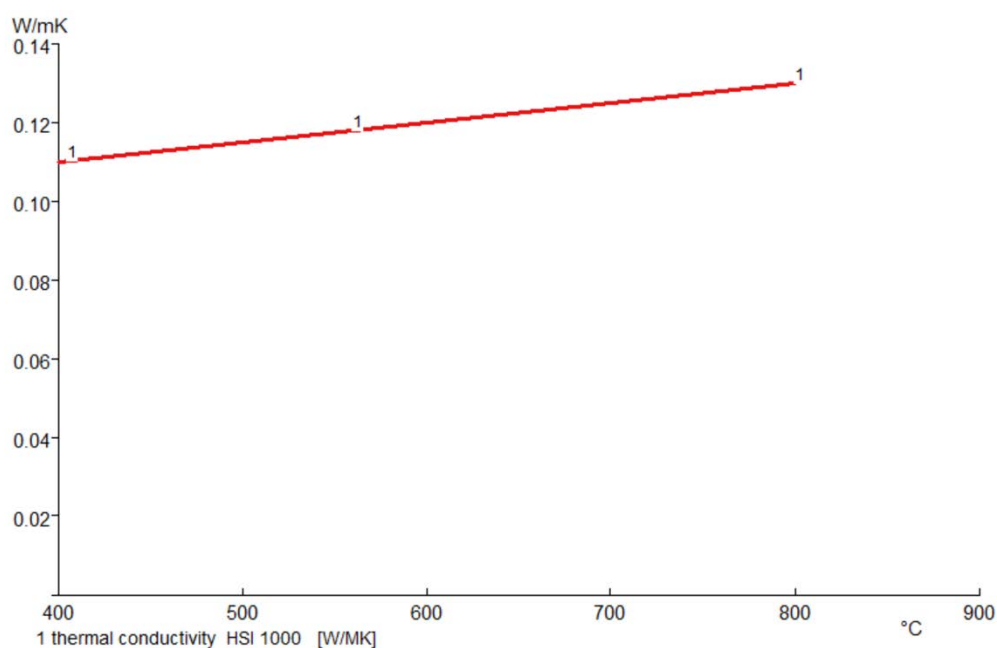
Applications

- Ladle & Tundish Insulation
- Lime Kiln and Cement Kiln Insulation
- High temperature gasket & sealings
- Boiler & Furnace Insulation
- Oil & Gas Burners Insulation
- Furnace, Dryer, and Oven Insulation
- Pipe & duct Insulation
- Metal clad Gaskets fillers
- Gaskets for centrifugal casting
- Glass rollers as washers on mandrel
- Stainless Steel Plant Rollers Insulation
- Electrical & home appliances insulation gaskets
- Fire Resistant Doors, Lifts, Safes, Cupboards

Features & Benefits

- Very Strong Boards with high compressive strength
- High temperature resistance upto 1000°C
- Low Thermal Conductivity at high temperatures
- High Electrical Resistance at high temperature
- High fire resistance and heat shield properties
- Easy to cut and punch
- Available in moulded pipe section for pipe insulation

Properties	HSI 1000	
Base Materials	Wollastonite fibres & Calcium Silicate	
Classification Temperature, °C	1000	
Density, Kg/M3	1000	
Thermal conductivity, W/m.K		
	400 °C	0.11
	600 °C	0.12
	800 °C	0.14
Tensile Strength, Mpa	5	
Flexural Strength, Mpa	6	
Shrinkage % @ 1000 °C	< 1	
Compressive Strength, Mpa	8 - 10	
Loss on Ignition %	8	



HSI 800 | Technical Datasheet

Wedge HSI 800 are rockwool fibres based boards made of high temperature clay bonded with rockwool fibres. These boards have classification temperature of 850°C. These boards are most suitable for pipe insulation applications to reduce “Corrosion Under Insulation” in mineral wool pipe insulation applications.

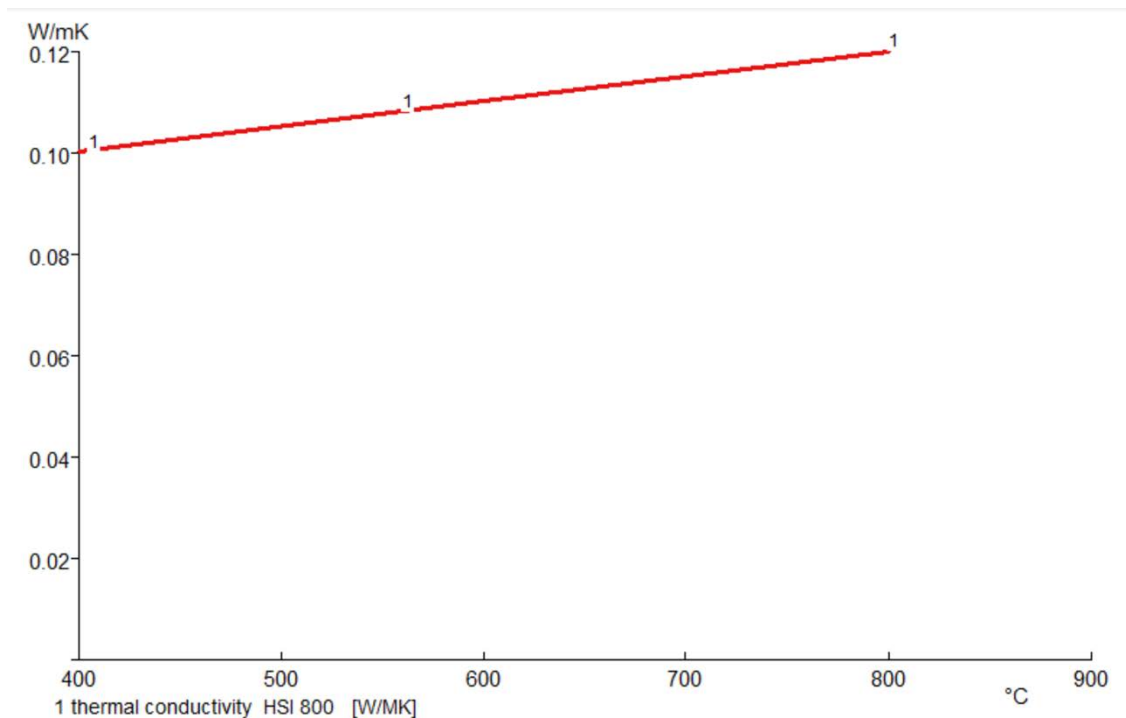
Applications

- Pipe Insulation & Pipe Support
- High temperature gasket & sealings
- Boiler & Furnace Insulation
- Oil & Gas Burners Insulation
- Furnace, Dryer, and Oven Insulation
- Pipe & duct Insulation
- Metal clad Gaskets fillers
- Aluminium & Steel Plant gaskets seals
- Electrical & home appliances insulation gaskets

Features & Benefits

- Strong Boards with high compressive strength
- High temperature resistance upto 850°C
- Low Thermal Conductivity at high temperatures
- High Electrical Resistance at high temperature
- High fire resistance and heat shield properties
- Easy to cut and punch
- Available in moulded pipe section for pipe insulation
- Good in reducing “Corrosion under Insulation”

Properties		HSI 800
Base Materials		Rockwool fibres & Refractory Clays
Classification Temperature, °C		850
Density, Kg/M3		850
Thermal conductivity, W/m.K		
	400 °C	0.09
	600 °C	0.10
	800 °C	0.11
Tensile Strength, Mpa		4
Flexural Strength, Mpa		5
Shrinkage % @ 800 °C		2
Compressive Strength, Mpa		5 - 6
Loss on Ignition %		15



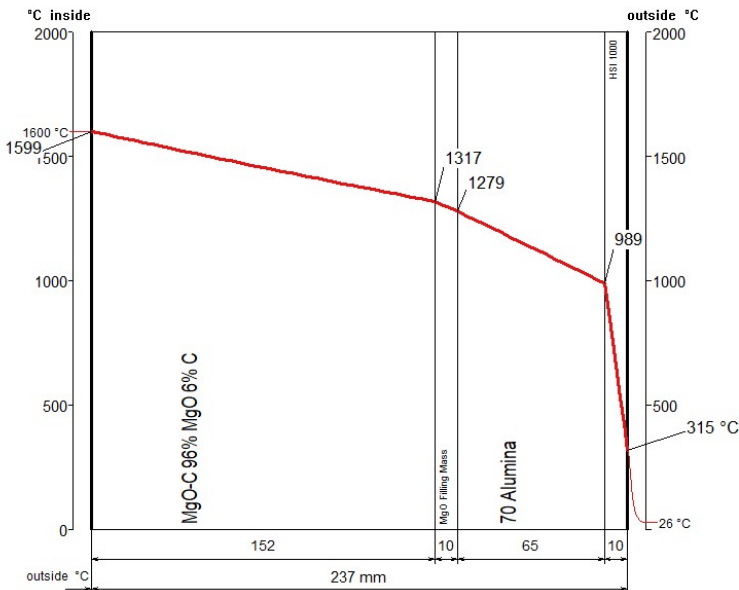
HSI Boards | Application Example in Ladle

Calculation 60 MT Ladle Insulation HSI10mm C6%

	inside	outside	unit	lining characteristics
Ambient temperature	1600	26	°C	75076 W/m (8240 W/m ²) Heat loss
Surface temperature	1599.0	314.6	°C	8967 MJ/m heat storage
Heat transition coefficient	10000	28.56 ⁽¹⁾	W/m ² K	5147 kg/m weight
Diameter	2426	2900	mm	237 mm total thickness

(1) Calculation method ASTM C680, issue 2004 Emissivity=0.95 - wind =0 m/s

wall layers from inside to outside	Material	Thickn. mm	Density kg/m ³	Classif. °C	temperature		K mean W/mK
					border °C	mean °C	
1	MgO-C 96% MgO 6% C	152	2960	1800	1599	1452	5.0
2	MgO Filling Mass	10	2950	1800	1316.9	1298	2.272
3	70 Alumina	65	2000	1600	1278.5	1132	1.906
4	HSI 1000	10	1100	1000	989.1	666	0.1233
						314.6	



Stop Ladle Shell Deformation



Wedge India

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