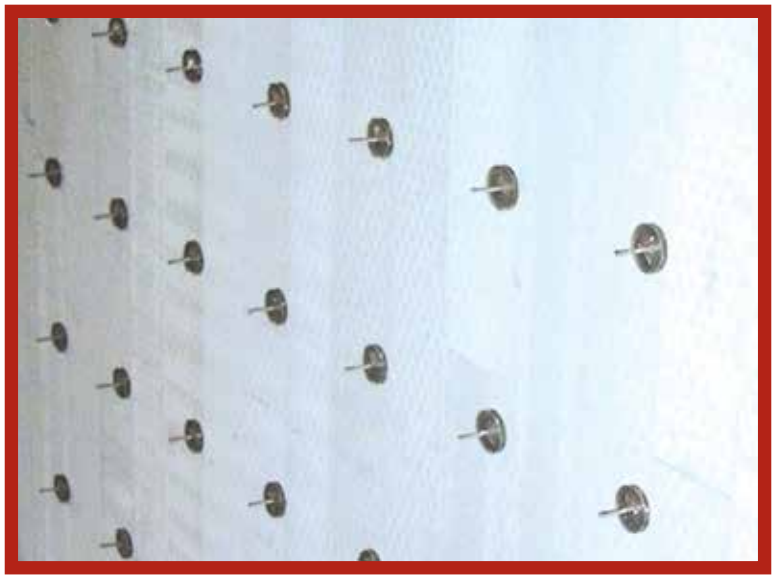
Super-Isol™/1100™

Densulate™ Insulation Slabs



Features & Benefits

Wear-Con Densit® Super-Isol™/1100™ Densulate™ Insulation Slabs are a range of extremely lightweight instulation with excellent insulating value, high mechanical strength, and exceptional heat resistance. **Super-Isol™/1100™** is designed to be used as part of the **Densulate™ Insulated Wear Protection System**, but can be used as back-up for all refractory equipment. Three **Super-Isol™/1100™** surface finishes are available: smooth, rigid, and non-dusting.

Installation

Wear-Con Densit® Super-Isol™/1100™ can be installed as a part of the **Densulate™ Internally Insulated Wear Protection System** (See **Densulate™** data sheet). **Super-Isol™/1100™** can also be installed independently by welding pins to the surface, pushing **Super-Isol™/1100™** onto pins, then fixing by bending excess length of pins neatly into insulation slab.

Technical Specifications

Due to their exceptional heat resistance and low thermal conductivity properties, **Wear-Con Densit® Super-Isol™/1100™** will withstand continuous temperatures up to 1832°F and 2012°F, respectively. **Super-Isol™/1100™** is highly resistant to monoxide and hydrocarbons, making them ideal for furnaces with reducing atmospheres, as well as combustion and high-temperature process equipment (see reverse for more technical data).

Sizes

Wear-Con Densit® Super-Isol™/1100™ is available in 1" thick (± 0.06"), 4"x39.4" (± 0.1") standard slabs. Thicknesses from 1" to 4" available on request.

(See reverse for more technical data.)

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Super-Isol™/1100™

Densulate™ Insulation Slabs

Technical Data			
Properties		Densit® Super-1100™	Densit® Super-Isol™
Max. Service Temp.	°C (°F)	1000 (1832)	1100 (2012)
Bulk Density (Dry)	kg/m³ (lb/ft³)	225 (14)	245 (15.3)
Compressive Strength (EN 1094-5:1995)	MPa (lb/ft³)	2.6 (337)	2.7 (391.5)
Total Porosity	%	91	90
Creep in Compression 50h at 900°C (1652°F) Load 0.1 MPa (14.5 lb/ft²)	%	0.5	0.4
Specific Heat	kJ/kg·K (BTU/lb·°F)	0.84 (0.20)	0.84 (0.20)
Coefficient of Reversible Thermal Expansion (BS 1902:section 5.3:1990) at 200°C - 750°C (392°F - 1382°F)	K^{-1} (OF^{-1})	$5.5x10^{-6}$ ($3.1x10^{-6}$)	$5.5x10^{-6}$ ($3.1x10^{-6}$)
Linear Reheat Shrinkage (EN 1094-6:1999) 12 h at 50°C (122°F) below Max. Service Temp.	%	1	1
Pyrometric Cone Equivalent (ASTM C24-89 ORTON cones)	°C (°F)	1345 (2453)	1345 (2453)
Thermal Conductivity (ASTM C-182)	W/m·K		
Mean Temp. at 200°C (392°F)	(BTU/ft²·h·°F) /in	0.06 (0.42)	0.07 (0.49)
at 400°C (752°F)		0.08 (0.55)	0.09 (0.62)
at 600°C (1112°F)		0.10 (0.69)	0.10 (0.69)
Chemical Composition	SiO_2	45%	47%
	Al_2O_3	0.2%	0.3%
	Fe_2O_3	0.2%	0.3%
	MgO	0.7%	0.6%
	CaO	45%	45%
	Na_2O	0.1%	0.1%
	K_2O	0.2%	0.1%
Loss on Ignition at 1025°C (1877°F)	LOI	8%	6%

(See reverse for more information.)

Densit

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