

Superwool® Blankets



Superwool is manufactured from pure raw materials and processed to offer excellent performance in high-temperature applications. Superwool offers an alternative to traditional solutions due to its high refractoriness and excellent non-wetting characteristics with molten aluminum.

Superwool provides stability and resistance to chemical attack. Exceptions include hydrofluoric acid, phosphoric acid and strong alkalis (i.e. NaOH, KOH). Superwool is unaffected by incidental spills of oil or water. Thermal and physical properties are restored after drying.

Superwool is ideally suited to individual applications and is available in a wide range of thicknesses and densities. The maximum continuous use temperature depends on the application. Refer to your local Thermal Ceramics representative for advise.

Type

Alkaline Earth Silicate (AES) Wool
CAS number: 329211-92-9

Features

- Low biopersistence
- Thermal stability
- Low heat storage
- Good resistance to tearing
- Flexible and resilient
- Immune to thermal shock
- Excellent thermal insulating performance
- Based on patented technology

Applications

- Furnace kiln, reformer and boiler lining
- Laboratory ovens
- Furnace door lining and seals
- Furnace repair
- Annealing furnace linings
- Investment casting mold wrap
- Stress - relieving blankets
- Reusable steam and gas turbine insulation
- Expansion joints packing
- High temperature gasketing
- Fire protection
- Acoustical service
- Cryogenic insulation

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Physical Properties

	Superwool 607	Superwool Plus	Superwool HT
Color	white	white	white
Classification Temperature Rating, °F (°C)	2012 (1100)	2192 (1200)	2372 (1300)
Density, pcf (kg/m ³)	4, 6, 8, 10 (64, 96, 128, 160)	4, 6, 8, 10 (64, 96, 128, 160)	4, 6, 8, 10 (64, 96, 128, 160)
Tensile strength, psi (kPa)			
4 pcf (64 kg/m ³)	-	-	4 (30)
6 pcf (96 kg/m ³)	-	-	7 (50)
8 pcf (128 kg/m ³)	-	11 (75)	11 (75)
10 pcf (160 kg/m ³)	-	-	14 (95)
Typical linear shrinkage, % 24 hours			
@ 1000°F (538°C)	2	-	-
@ 1800°F (982°C)	3	<1	-
@ 2282°F (1250°C)	-	-	<2

Chemical Analysis, %

Silica, SiO ₂	60 - 70	62 - 68	70 - 80
Calcium Oxide, CaO	25 - 35	26 - 32	18 - 25
Magnesium Oxide, MgO	4 - 7	3 - 7	-
Other	trace	<1	<3

Thermal Conductivity, Btu•in/hr•ft²•°F (w/m•k) (ASTM 201), measured at 8 pcf (128 kg/m³)

Mean temperature	Superwool 607	Superwool Plus	Superwool HT
@ 500°F (260°C)	0.42 (0.06)	0.39 (0.06)	0.35 (0.04)
@ 1000°F (538°C)	0.88 (0.13)	0.73 (0.11)	0.83 (0.12)
@ 1500°F (816°C)	1.53 (0.22)	1.28 (0.18)	1.66 (0.24)
@ 1832°F (1000°C)	2.00 (0.29)	1.73 (0.25)	-
@ 2000°F (1093°C)	-	-	2.77 (0.4)
@ 2192°F (1200°C)	-	-	3.33 (0.48)

Availability

Thickness, in. (cm)	Width, in. (cm)	Length, in. (cm)	Cartons/Pallet
¼ (0.635)	24, 48 (61,122)	240 (610)	24" cartons on 19" x 19" x 25" pallet = 24 cartons/pallet
½ (1.27)	24, 48 (61,122)	600 (1524)	
1 (2.54)	24, 48 (61,122)	300 (762)	
1½ (3.81)	24, 48 (61,122)	180 (457)	48" cartons on 19" x 19" x 49" pallet = 12 cartons/pallet
2 (5.08)	24, 48 (61,122)	150 (381)	

The values given herein are typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Therefore, the data contained herein should not be used for specification purposes. Check with your Thermal Ceramics office to obtain current information.

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