

Superwool® Blankets



Datasheet Code US: 11-14-105

MSDS Code US: 350, 600

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Superwool is manufactured from pure raw materials and processed to offer excellent performance in high-temperature applications. Superwool offers an alternative to traditional insulating 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 many applications and is available in a wide range of thicknesses and densities. The maximum continuous use temperature depends on the application. Refer to your Morgan Thermal Ceramics sales 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

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Physical Properties

	Superwool 607® white	Superwool Plus white	Superwool 607 HT 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)

Chemical Analysis, %

	Superwool 607® white	Superwool Plus white	Superwool 607 HT white
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

Mean temperature	Superwool 607® white	Superwool Plus white	Superwool 607 HT white
@ 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 (0.40)
@ 2192°F (1200°C)	-	-	3.33 (0.48)

Tensile strength, psi (kPa)

Tensile strength	Superwool 607® white	Superwool Plus white	Superwool 607 HT white
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)

Linear shrinkage, % 24 hours

Linear shrinkage	Superwool 607® white	Superwool Plus white	Superwool 607 HT white
@ 1000°F (538°C)	2	-	-
@ 1800°F (982°C)	3	<1	-
@ 2282°F (1250°C)	-	-	<2

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 48" cartons on 19" x 19" x 49" pallet = 12 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)	
2 (5.08)	24, 48 (61,122)	150 (381)	

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