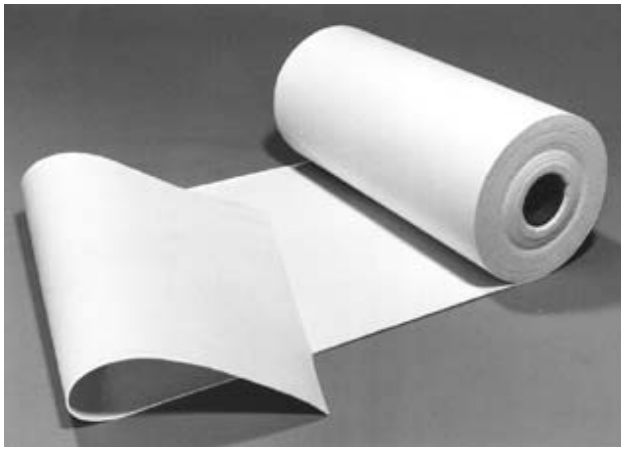
Superwool® Paper

Product Information



Superwool Papers are uniquely designed from Superwool bulk and organic binders in a unique paper making process. Superwool Papers are specially processed to offer excellent performance in high-temperature applications. Superwool Papers offers an alternative to traditional solutions due to its unique properties of high refractoriness and excellent non-wetting characteristics to applications requiring direct contact with molten aluminum.

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

Superwool Papers has excellent tensile strengths, high insulating values at high temperatures, and outstanding handling characteristics. It conforms easily to complex shapes and can be die-cut.

Superwool Flex-Wrap is produced from a blend of Superwool high purity fibers and organic binders in a unique paper making process. Due to its low organic binder content, offgassing is at a minimum. This specialty paper is noted for its excellent flexibility, outstanding handling characteristics, and high insulating value at high temperatures.

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

Classification temperature
2012°F *(1100°C)*

Features
- Low biopersistence
- Thin, flexible high temperature insulation
- Thermal stability
- Conforms easily to complex shapes
- Low heat storage
- Easily die-cut to form complex shapes for high temperature gasketing
- Flexible and resilient
- Immune to thermal shock
- Excellent thermal insulating performance
- Based on patented technology
- Low thermal conductivity and heat storage
- Non-wetting to molten aluminum

Applications
- Gasketing between aluminum and zinc trough sections
- Aluminum furnace tap-out plug cover and parting agent
- Aluminum distributor pan linings
- Gaskets for any high temperature application
- Back up lining for metal troughs
- Refractory back up for aluminum melting and holding furnaces
- Aluminum casting and fabrication

Superwool Paper

Product Information

Physical Properties	**607**	**607 Flex-Wrap**	**607 MAX**
Color	white	white	white
Continuous use limit, up to °F *(°C)*	1832 *(1000)*	1832 *(1000)*	2200 *(1204)*
Maximum use limit,°F *(°C)*	2012 *(1100)*	2012 *(1100)*	2300 *(1260)*
Melting point, °F*(°C)*	2327 *(1275)*	2327 *(1275)*	2372 *(1300)*
Density, pcf *(kg/m³)*	11 - 13 *(176 - 208)*	10 - 13 *(160 - 208)*	11 - 14 *(176 - 224)*
Thickness, in *(mm)*	1/16 to ¼ *(1.6 to 6.25)*	1/16 to ¼ *(1.6 to 6.25)*	1/16 to ¼ *(1.6 to 6.25)*
Chemical Analysis, % Weight basis after firing			
Silica, SiO_2	60 - 70	*60 - 70*	60 - 70
Alumina, Al_2O_3	trace	trace	trace
Calcium Oxide, CaO	25 - 35	25 - 35	16 - 22
Magnesium Oxide, MgO	4 - 7	4 - 7	12 - 19
Zirconia, ZrO_3	–	–	–
Other	1	1	<1
Loss of ignition	5 - 10	2 -5	5 - 10
Thermal Conductivity, Btu•in/hr•ft²•°F *(w/m•k,* ASTM 201			
Mean temperature			
@ 500°F *(260°C)*	0.39 *(0.06)*	0.39 *(0.06)*	0.39 *(0.06)*
@ 1000°F *(538°C)*	0.65 *(0.09)*	0.65 *(0.09*	0.65 *(0.09)*
@ 1500°F *(816°C)*	1.04 *(0.15)*	1.04 *(0.15)*	1.02 *(0.15)*
@ 1800°F *(982°C)*	1.35 *(0.19)*	1.35 *(0.19)*	–
@ 2000°F *(1093°C)*	–	–	1.52 *(0.22)*

Standard Sizes

Thickness in *(mm)*	**Width in *(mm)***	**Square Feet *(M)* Per Roll (approx)**	**Mill Rolls* L.F. *(L.M.)*/Roll**
1/16	12, 24, 48	500	750
(1.6)	*(300, 600, 1200)*	*(152)*	*(228)*
1/8	12, 24, 48	250	375
(3.125)	*(300, 600, 1200)*	*(78)*	*(114)*
¼	12, 24, 48	125	185
(6.25)	*(300, 600, 1200)*	(38)	*(56)*

* Non–standard roll size available upon request

Chemical Properties

A small amount of combustible organic binder will burn out at approximately 300°F *(149°C)*. **Caution should be exercised during the initial heating. Adequate ventilation should be provided to avoid potential flash ignition of the binder outgassing and to avoid air entry while at elevated temperature.**

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