

MaxWool™ tank car blanket

MaxWool™ Tank Car Blanket, manufactured by Nutec, uses silica sand and calcined alumina. These materials are melted in an electric arc furnace. The melted material is dropped onto high speed wheels to form the fibers. The fibers are stripped off with air and deposited on a conveyor. The accumulation of the fiber is needled to the desired thickness and densities.

Nutec's MaxWool™ Tank Car Blanket meets the Department of Transportation (DOT) thermal properties for fire protection under 49 CFR Part 179. The blanket product can be used as insulation in various DOT rail car classes to include: DOT - 105, 109, 111, 112, and 114. MaxWool Tank Car Blanket can be used as an insulation system for Chlorine tank cars as well.



MaxWool™ provides excellent tensile strength, surface integrity, and good handling characteristics. Some typical data can be seen below:

Technical Specifications

Classification Temperature	2300°F (1260°C)
Recommended Operating Temperature	2150°F(1176°C)
Melting Point	3200°F(1760°C)
Color	White

Typical Chemical Analysis %

Al ₂ O ₃	44-50
SiO ₂	50-56
Other	2
Loss on Ignition (LOI)	0

Typical Product Parameters

Thickness	0.5", 0.65", 1.0", and 2.0"
Density (minimum)	4.5 lbs./ft ³
Blanket Dimensions*	Width: up to 50" Length: 32 LF

*For availability for other sizes or parameters, contact your Nutec Sales Engineer

Surface Burning Characteristics per ASTM-E-84 & UL 273 "Surface Burning Characteristics of Building Materials"

Flame Spread Rating: 0
Smoke Developed Rating: 0

The MaxWool™ Tank Car Blanket does meet the thermal properties for fire protection outlined in 49 CFR Part 179.18 (Appendix B) Thermal Protection Systems April 22, 2015. The product was tested at Intertek and documented under Report # 101109776SAT-002. The blanket was tested to both the pool and torch tests. Products are used in applications and systems defined in Dockets HM-144, HM-145, HM-175, HM-175a, and HM-181.

Chemical Properties

MaxWool™ Tank Car Blanket has excellent resistance to chemical attack with a few exceptions. Those exceptions include hydrofluoric and phosphoric acids as well as strong alkalis such as sodium oxide (Na₂O) and potassium oxide (K₂O).