

Kaowool® Tank Car Blanket

Datasheet Code US: 5-14-220

Kaowool Tank Car Blanket is produced from Thermal Ceramics high quality alumina-silica fibers. These fibers are air-layered into a continuous mat and mechanically needled for added tensile strength and surface integrity.

Kaowool Tank Car Blanket is acceptable for use as thermal protection systems on class DOT 105J, 111J, 111A, CPC 1232, 112J, 112T, 114J and 114T tank cars. Approvals are listed in AAR Tank Car Specification, Appendix X and as published in the Federal Register on January 31 1986 (51 FR 4063), Approval include special application on Chlorine tank cars.

Approved System Applications

- System Application 2: Kaowool Tank Car Blanket, 0.52" thick, 4.8 pcf, 11 ga. steel jacket
- System Application 4: Kaowool Tank Car Blanket, 0.52" thick, 4.8 pcf, 4" thick glass fiber compressed to 3.5", 11 ga. steel jacket
- Chlorine Tank Car Insulation, Kaowool Tank Car Blanket, 2" thick, 4.0 pcf, 2" thick glass fiber



Features

- Tested per CFR 49 Part 179 Appendix B for 100 minute pool fire and 30 minute torch fire requirements
- Approvals by DOT/PHMSA and American Association of Railroads "Manual of Standards and Recommended Practices Specification for Tank Cars", Appendix X, list of approved thermal protection systems
- Accepted for use as chlorine tank car insulation
- Lightweight with low thermal conductivity and heat storage
- High melting point and mechanical stability in pool and torch fire environments
- Highly flexible; easily cut and fabricated
- High tensile strengths for excellent handleability
- Blanket length provided to suit single wrap around diameter of vessel
- No organic binders, therefore no degradation nor off-gassing during service

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Updated: 02/2016

Blanket Product Name	<u>Kaowool Tank Car Blanket</u>
Fiber Class	RCF
Physical Properties	
Color	white
Classification Temperature, °F	2300
Classification Temperature, °C	1260
Density, pcf	4
Denisty, kg/m ³	64
Chemical Analysis, % weight basis after firing	
Alumina, Al ₂ O ₃	45
Silica, SiO ₂	53
Other	2
Thermal Conductivity, BTU•in/hr•ft², per ASTM C201	
<u>Density, pcf</u>	<u>4</u>
500°F	0.54
1000°F	1.29
1500°F	1.73
2000°F	2.19
Thermal Conductivity, W/m•K, per ASTM C201	
<u>Density, kg/m³</u>	<u>64</u>
260°C	0.08
538°C	0.19
816°C	0.25
1093°C	0.32

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 Morgan Advanced Materials office to obtain current information.