



CER-WOOL blanket products are made from a spun process whereby as produced ceramic fiber is air-laid into a continuous mat and mechanically needled for added strength. CER-WOOL blankets do not contain organic binders and they are available in standard 24" and 48" widths and thickness from ½" to 2". Blanket strip in custom widths down to 3" wide can be made available to meet specific needs.

**CER-WOOL RT** is produced from kaolin, a naturally occurring alumina-silica fireclay. This standard grade product is a cost effective alternative to CER-WOOL HP.

**CER-WOOL HP** is produced from high purity alumina and silica raw materials. The resultant quality spun fibers have high tensile strength and excellent high temperature stability.

**CER-WOOL HTZ** is a high temperature 2600°F, refractory blanket produced from high purity alumina, silica, and zirconia raw materials. This product has exceptional thermal stability at elevated temperatures and is recommended for applications above the service limit of CER-WOOL HP.

**Features**

- Very high tensile strength
- High resistance to tearing and abuse
- Low thermal conductivity
- Thermal shock resistant
- Available in a wide range of densities and thicknesses
- Contains no binder

**Applications**

- Crude oil heater linings
- Ethylene heater linings
- Heat treating and annealing furnaces
- Reheating furnaces
- Boiler insulation
- Pipe covering
- Kiln car insulation
- Ovens

# CER-WOOL Blanket

## Product Information

Physical Properties	CER-WOOL RT	CER-WOOL HP	CER-WOOL HTZ
Color	off white	white	white
Density, pcf ( <i>kg/m<sup>3</sup></i> )	4, 6, 8 ( <i>64, 96, 128</i> )	4, 6, 8 ( <i>64, 96, 128</i> )	4, 6, 8 ( <i>64, 96, 128</i> )
Thickness, in. (mm)	1, 1½, 2 ( <i>25, 38, 50</i> )	½, 1, 1½, 2 ( <i>12.5, 25, 38, 50</i> )	½, 1, 1½, 2 ( <i>12.5, 25, 38, 50</i> )
Continuous temp. rating, °F (°C)	2100 ( <i>1149</i> )	2150 ( <i>1177</i> )	2400 ( <i>1316</i> )
Classification temp. rating, °F (°C)	2300 ( <i>1260</i> )	2300 ( <i>1260</i> )	2600 ( <i>1425</i> )
Linear shrinkage, %, 24 hours isothermal conditions			
@ 1900°F ( <i>1035°C</i> )	<1	<1	<1
@ 2000°F ( <i>1090°C</i> )	1.5	1.3	1.0
@ 2100°F ( <i>1150°C</i> )	1.8	1.6	1.4
@ 2200°F ( <i>1200°C</i> )	2.8	2.5	1.8
@ 2400°F ( <i>1315°C</i> )	-	4.3	2.1
@ 2600°F ( <i>1425°C</i> )	-	-	3.9

### Chemical Analysis, %, Weight basis after firing

Alumina, Al <sub>2</sub> O <sub>3</sub>	43 - 47	44 - 49	33 - 37
Silica, SiO <sub>2</sub>	49 - 53	50 - 54	46 - 51
Zirconia, ZrO <sub>2</sub>	-	-	14 - 18
Ferric oxide, Fe <sub>2</sub> O <sub>3</sub>	1.0 - 1.5	<0.1	<0.1
Titanium oxide, TiO <sub>2</sub>	0.7 - 1.2	<0.1	<0.4

### Thermal Conductivity, BTU•in./hr•ft<sup>2</sup>•°F, ASTM C177

measured density, pcf	<u>8</u>	<u>8</u>	<u>8</u>
mean temperature @ 500°F ( <i>260°C</i> )	0.47 ( <i>0.07</i> )	0.47 ( <i>0.07</i> )	0.47 ( <i>0.07</i> )
@ 1000°F ( <i>538°C</i> )	0.99 ( <i>0.14</i> )	0.99 ( <i>0.14</i> )	0.99 ( <i>0.14</i> )
@ 1500°F ( <i>815°C</i> )	1.71 ( <i>0.25</i> )	1.71 ( <i>0.25</i> )	1.71 ( <i>0.25</i> )
@ 1800°F ( <i>982°C</i> )	2.13 ( <i>0.31</i> )	2.13 ( <i>0.31</i> )	2.13 ( <i>0.31</i> )
@ 2000°F ( <i>1093°C</i> )	2.43 ( <i>0.35</i> )	2.43 ( <i>0.35</i> )	2.43 ( <i>0.35</i> )

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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