KOOLMAT HEAT INSULATION

Koolmat Insulation Silicone


KoolMat Silicone

KoolMat ® insulation is a composite material of silicone cured to the surface and weave of a high temperature fiberglass substrate. The silicone offers a great resistance to abrasion, radiant heat, gasses and oils and is suitable for continuous use at temperatures up to 500º F. The fiberglass side will withstand temperatures up to 1100º F. KoolMat insulation also performs well at low temperatures, remaining flexible down to -40º F.

KoolMat is a space age material used in thousands of Commercial, Industrial and Automotive applications. KoolMat is a composite material of silicone cured to the surface and weave of a high temperature fiberglass substrate. Weighing .72 per sq. foot and a thickness of .070. Because the silicone attaches itself to the textile, there is no separation, and no flow of air or liquids through KoolMat. The silicone offers a great resistance to abrasion, radiant heat, gasses and oils. No matter what temperatures. It is also an excellent sound deadening device. KoolMat is flexible and can be die cut to any shape or size and still perform like no other barrier. KoolMat is able to withstand 500° F of radiant heat and up to 2000° F with a ceramic backing. Used in 8O% of NASCAR and accepted by NHRA in October 1994.

In this example, Koolmat Insulation is used in place of a refractive, a common hi temperature fabric flex joint material, due to its superior durability in areas of temperatures, environmental exposure, vibration and sound dampening. The example shown has been in place for several years with no visible signs of deterioration.

Sound Transmission Test by ASTM E90-90 Method

Specimen: 60" X 65" sample of KOOLMAT Insulation. One 0.105"-thick (nom.) flexible composite barrier panel consisting of a 0.070"-thick (nom.) cured silicone sheet with a high-temperature woven fiberglass substrate. Composite panel installed with the perimeter uniformly clamped and sealed into a wood-framed opening in a 14' X 9' STC-58 filler-wall construction. Panel weight: 18.9 lbs (0.70 PSF).

Octave-Interval Mid-Frequency (Hz)	**Transmission Loss (dB)***		
f_0	$2\text{-}1/3f_0$	f_0	$2\text{+}1/3f_0$
125	7.	12.	12.
250	14.	14.	16.
500	17.	19.	20.
1000	22.	23.	25.
2000	27.	29.	31.
4000	33.	34.	37.
Sound Transmission Class (STC) = 23 per ASTM Designation E413-87			
*Determined in accordance with ASTM Designation E90-90 using source and receiving rooms having volumes of 1860 cubic feet.			

Koolmat Heatmaster Shield

Koolmat Heatmaster Shields

Heatmaster Shields strap protection directly to exhaust mufflers, converters, or crossover. Help shield a starter or master cylinder. Custom made to your specifications (priced per square inch, plus straps and shipping). Stainless steel tie straps available (26.8" long x 1/4" wide).

A Test Engine Exhaust System to vent into the outside. This system is
handling hot exhaust gases, and will then put it into a scrubber system before letting the air in to the atmosphere.

To speak with a Memtech Acoustical consultant about Koolmat Heat Insulation and Koolmat Heatmaster Shiled, contact Memtech Acoustical LLC