

# ApexMat-S

## Silica Mat

### Product Description

ApexMat-S Silica Mat is made from 100% amorphous silica fiber and can withstand intermittent temperatures 1260°C and melting temperatures of up to 1704°C. It features accurately chopped fibers mechanically bonded through needle-punching, without the use of additional binders. This ensures high thermal insulation efficiency and excellent sound absorption across various applications.

The standard needle mat is available in thicknesses ranging from 1/4", 1/2", 1". This silica needle mat or felt is easy to handle and can be cut into any desired shape or form. It is commonly used in applications such as preformed exhaust pipe insulation for automobiles and motorcycles, petrochemical insulation pipes, insulation jackets, and other energy-saving



### Features

- Low thermal conductivity, excellent thermal insulation
- High temperature duration, low heat shrinkage and heat loss
- High porosity, excellent sound absorption
- 100% inorganic fiber, non-combustibility
- Good tensile strength and resistance for wind velocity
- Material is considered non-flammable

Properties	ApexMat-S		
Nominal Density	9 lb/ft <sup>3</sup> (144 Kg/m <sup>3</sup> )		
Service Temperature	1800°F (982°C)		
Intermittent Temperature	2300°F (1260°C)		
Melting Point	3100°F (1704°C)		
Thickness	1/4"	1/2"	1"
Width	60" (152cm)		

Tolerance +/- 10% unless otherwise specified.

Thermal Conductivity (K)	(BTU • inch) /(hr • ft <sup>2</sup> • °F)	W/m • K
500°F (260°C)	0.44	0.06
1000°F (538°C)	0.79	0.11
1500°F (816°C)	1.38	0.2
1800°F (982°C)	1.91	0.28

The product(s) represented are intended for industrial insulation jacket applications. The values and application information in this datasheet are given for guidance only. The values and the information given are subject to normal manufacturing variation and may be subject to change without notice. Gideon makes no guarantees and gives no warranties about the suitability of a product.