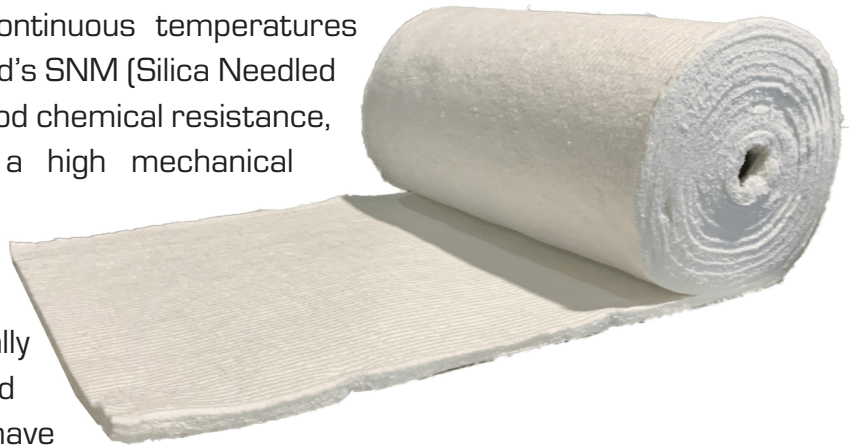


## SILICA NEEDED MAT (SNM) DATA SHEET

### About the Product

Pyro Shield's Silica Needed Mat (SNM) is made of continuous filament fibers with a diameter of  $\geq 6-9$  micron which goes beyond the critical diameter range of 3 micron. Fibers with a diameter of  $\geq 6-9$  micron are to be considered as harmless to health according to the present state of knowledge of labor medicine. Due to the chemical composition our SNM's show an excellent resistance to continuous temperatures beyond 1,800°F, moreover, Pyro Shield's SNM (Silica Needed Mat). materials stand out by a very good chemical resistance, excellent physical properties, and a high mechanical strength. Pyro Shield's Silica Needed Mat products are "shotfree" and a great replacement for ceramic fiber. Our Silica Mat is needed mechanically without addition of binders. Pyro Shield Needle Mats are incombustible and have excellent insulating properties and a good vibration stability.



### Product Info

	1/2"	1"
Color/Appearance	White	White
Width (in)	36 in	36 in
Roll Length (ft)	75 ft	33 ft 3 in
Area (ft <sup>2</sup> / roll)	225	100
Density (lbs / ft <sup>3</sup> )	9.4 lbs	10 lbs
Weight (lbs / roll)	90 lbs	90 lbs
Thickness	12	1

**Melting Temperature:** 3,100°F    **Construction:** Random Fiber Orientation

**Temperature Resistance:** 1,800°F Continuous/2,900°F Short Time

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**Mat Type**

### Sound Absorption

1/2"	HZ 400	HZ 500	HZ 630	HZ 800	HZ 1000	HZ 1250	HZ 1600	HZ 2000	HZ 2500	HZ 3150	HZ 4000	HZ 5000	HZ 6300	HZ 8000	HZ 10000
	0.14	0.24	0.33	0.44	0.58	0.72	0.80	0.87	0.92	0.91	0.96	0.98	0.96	0.97	0.94
1"	HZ 50	HZ 63	HZ 80	HZ 100	HZ 125	HZ 160	HZ 200	HZ 250	HZ 315	HZ 400	HZ 500	HZ 630	HZ 800	HZ 1000	HZ 1250
	0.012	0.011	0.038	0.045	0.054	0.066	0.105	0.139	0.174	0.221	0.368	0.480	0.510	0.533	0.537
						HZ 1600	HZ 2000	HZ 2500	HZ 3150	HZ 4000	HZ 5000	HZ 6300			
					0.528	0.563	0.641	0.645	0.723	0.768	0.799				

### Thermal Conductivity

Density (lb/ft <sup>3</sup> )	122°F	392°F	752°F	1112°F	1472°F	1832°F
6 lb/ft <sup>3</sup>	0.037	0.059	0.100	0.156	0.228	0.316
8 lb/ft <sup>3</sup>	0.045	0.060	0.104	0.172	0.263	0.377
10 lb/ft <sup>3</sup>	0.046	0.064	0.113	0.186	0.281	0.396
11 lb/ft <sup>3</sup>	0.045	0.066	0.103	0.151	0.209	0.280

**Sunlight & Age Resistance:** Excellent    **Solvent Resistance:** Excellent

**Electrical Properties:** High Dielectric strength, low constants

**Permanent Linear Change:** 1,000°F 3%, 1,200°F 4%, 1,400°F 5%, 1,600°F 6%, 1,800°F 6.5%

**Chemical Resistance:** Most chemicals except acid, phosphoric acid, and strong alkali

All statements are expressed opinion which we believe to be accurate, reliable, and presented without guarantee or responsibility on our part. The data presented above consists of typical properties and should not be used in preparing specifications. No warranties are expressed or implied and users should test this material thoroughly for their specific application.