

## HITLIN Needle-Mat FELT Material — HG-FELT Type

### General Product Information

HITLIN™ HG-FELT Material is a high-density, e-glass fiber needled-felt (mechanically bonded), binder-free insulation for thermal insulation purposes. HG-FELT is used as a thermal insulation component in the fabrication of insulation systems for use on machinery and equipment, such as steam turbines, boilers, control valves, mufflers, industrial ovens and piping systems at temperatures from ambient up to 1200°F (650°C). It is also commonly used for removable pads and for “expansion joints” in high temperature installations where energy efficiency is an important factor. HG-FELT is manufactured using textile-grade e-glass fibers. It is available in three (3) thicknesses: 1/4” (6mm), 1/2” (12mm) and 1” (25mm).

### Description & Common Applications

HITLIN™ HG-FELT is recommended as a component in any industrial insulation system. It has common usage in power plants, refineries geothermal, concentrating solar power (CSP), petro-chemical, bio-fuels and exhaust systems.

### Thermal Conductivity (k)

Apparent Thermal Conductivity (Max)

Btu in/h/ft<sup>2</sup>/°F (W/m°C) at mean temp. of:

|               |              |
|---------------|--------------|
| 75°F (24°C)   | 0.29 (0.042) |
| 300°F (149°C) | 0.40 (0.058) |
| 500°F (260°C) | 0.50 (0.072) |
| 700°F (371°C) | 0.65 (0.094) |



### Physical Properties

- Good Thermal Conductivity
- Noncombustible
- Large Non Respirable Fibers
- Flame Spread / Smoke Developed = 0/0
- Excellent Vibration Resistance
- Negligible Moisture Absorption
- Excellent Sound Absorption Qualities
- Will Not Contribute to Metal Corrosion
- Odorless

HITLIN™ HG-FELT is manufactured to conform with requirements of MIL-I-16411 Type II and Coast Guard Specification for Incombustible Materials #164.009 and MIL-I-24244

### Product / Packaging Information

| Thickness                                     | 1/4" (6 mm)<br>6T*                              | 1/2" (12 mm)<br>12T*                            | 1" (25 mm)<br>25T*                             |
|---|---|---|--|
| Description                                   |   |   |  |
| Roll Width                                    | 39.37" (1000 mm)                                | 40.16" (1020 mm)                                | 39.37" (1000 mm)                               |
| Roll Length                                   | 131.23 feet (40 m)                              | 82.01 feet (25 m)                               | 32.81 feet (10 m)                              |
| Area Per Roll                                 | 430.6 ft <sup>2</sup> (40 m <sup>2</sup> )      | 274.5 ft <sup>2</sup> (25.5 m <sup>2</sup> )    | 107.6 ft <sup>2</sup> (10 m <sup>2</sup> )     |
| Material Density                              | 7.5 lb/ft <sup>3</sup> (120 kg/m <sup>3</sup> ) | 8.7 lb/ft <sup>3</sup> (140 kg/m <sup>3</sup> ) | 10 lb/ft <sup>3</sup> (160 kg/m <sup>3</sup> ) |
| * Denotes Manufacturers Thickness Designation |   |   |  |
| Material Density Tolerance is +/- 10%         |   |   |  |