



Thermafiber®

Therma Wrap 80®

For thermal and acoustical performance in commercial and industrial applications.

Features and Benefits

- Flexible insulation for vessels, ducts and large diameter pipes.
- High density with exceptional thermal performance and resiliency.
- Easy cutting and forming to curved surfaces and irregular shapes.
- Available in roll form reducing labor.
- Will not wick moisture or conduct electricity.

Description

THERMAFIBER ThermaWrap 80 is a high density, foil-faced, flexible insulation material made from precision-formed continuous mineral fiber blanket. ThermaWrap 80 is available in sheet or roll form with FSK foil facing*.

*Contact Thermafiber for other available facings.

Applications

THERMAFIBER ThermaWrap 80 is suitable for both hot and cold applications to conserve energy, maintain process temperatures, and provide personnel protection. ThermaWrap 80 prevents condensation and reduces noise emission and transmission. ThermaWrap 80 is suitable for application to hot surfaces up to 1000 °F.

ThermaWrap 80 may be used to insulate plant equipment such as exhaust ducts, boilers, furnaces, ovens, tanks and large diameter ducts and piping and industrial equipment where an efficient and economical insulation is desired.

Standard Sizing

Thermawrap 80 is available in the following standard sizes:*

Thickness	Width (in.)	Sheet Length (in.)	Roll Length (in.)
1 1/2"	24, 36	48	144
2"	24, 36	48	144
2 1/2"	24, 36	48	144
3"	24, 36	48	144

*Stretch-out and non-standard sizes available

Thermal Performance

Mean Temperature		Apparent Thermal Conductivity	
°F	°C	Btu in/hr ft ² °F	W/mK
75	24	.24	.035
100	38	.27	.037
200	93	.30	.043
300	149	.38	.055
400	204	.46	.066
500	260	.56	.081

Based on measurements made in accordance with ASTM C-177 " Steady State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded Hot Plate Apparatus.

Other Information

Moisture Resistance	Adsorbs less than 1% by weight per ASTM C-553 Does not Wick per ASTM C-800
Stress Corrosion	Complies with ASTM C-795 and MIL I 24244B
Melt Point	>2000° F (1093°C)
Combustibility	Rated noncombustible per ASTM E-136
Surface Burning Characteristics	Flame spread 15; Smoke developed 25 per ASTM E-84

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Specification Compliance

THERMAFIBER ThermaWrap 80 complies to the following standards and specifications: ASTM E-84; ASTM E-136 (rated noncombustible as defined by NFPA Standard 220 when tested according to ASTM E136); ASTM C-177; ASTM C-411; ASTM C-518; ASTM C-553 (Federal Spec. HH-I-558B); ASTM C-612; ASTM C-1338.

Installation

Installed insulation thickness should be sufficient to limit the facing temperatures to less than 240 °F.

Determine the stretch-out-length of ThermaWrap 80 required by measuring the outside perimeter of the pipe or vessel to be insulated. Add an allowance of 6.28 times the insulation thickness in order to obtain the stretch-out dimension. For pipes and tanks of known diameters, the stretch-out (SO) is calculated by the following equation:

$$SO = (\text{diameter} + 2 \text{ times the insulation thickness}) \times 3.14$$

Precautions: ThermaWrap 80 should be kept clean and dry during shipping, storage, installation and system operation.

Start Up Procedure

On initial start-up only, heat rise should not exceed 15°F per minute to allow binder to dissipate without excessive temperature rise. Thermal conductivity is not affected. When insulation is to be used in applications exposed to high air velocities. Adequate protection must be provided to prevent erosion of insulation. Severe vibration may cause degradation of insulation under some conditions. Contact your representative for recommendations on unusual applications.

Safety First

Follow good safety and industrial hygiene practices during handling and installing of all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read material safety data sheets and related literature on products before specification and/or installation.

General

The information presented herein represents typical or average values obtained by ASTM or other standard methods. The values will vary due to normal manufacturing variations. The person using this product must determine its suitability for a particular application.

THERMAFIBER, LLC shall not be liable for incidental and consequential damages, directly or indirectly sustained, nor for any loss caused by application of these goods not in accordance with current printed instructions or for other than the intended use. Our liability is expressly limited to replacement of defective goods. Any claim shall be deemed waived unless made in writing to us within thirty (30) days from date it was or reasonably should have been discovered.

