Heat Transfer Compounds

PRODUCT SELECTION CHART

Product	T-3	T-75	T-99	SnapTrace®	EFS™-1	T-80	T-85	T-802	NH Nonhardening
Application	Provide an efficient thermal connection between the tracer and the process equipment where high temperature maintenance is required. Also used with Thermon's ChannelTrace™ system featuring TFK channels.			Preformed compound designed for rapid, consistent installation under TFK channel on straight runs of piping.	Preformed flexible sheet of heat transfer compound designed for use between plate-type coils and process vessels.	Suitable for use in areas of extreme moisture and/or corrosive environments with low to medium exposure temperatures. These products are particularly suited for valves and similar equipment.		Self-curing—no heat required. Suitable for use in areas of extreme moisture and/or corrosive environments.	Used where periodic disassembly is necessary or for plate-type heating coils.
Maximum Exposure Temperature	700°F (371°C)	800°F (425°C)	1,832°F (1000°C)	406°F (208°C)	406°F (208°C)	325°F (163°C)	375°F (190°C)	275°F (135°C)	375°F (190°C)
Minimum Exposure Temperature	-320°F (-196°C)			-100°F (-73°C)	-100°F (-73°C)	-320°F (-196°C)		-320°F (-196°C)	-320°F (-196°C)
Minimum Installation Temperature	32°F (0°C)			10°F (-12°C)	10°F (-12°C)	Ambient 0°F (-18°C) Product 10°F (-12°C)	Ambient 32°F (0°C) Product 70°F (21°C)	32°F (0°C)	Ambient 32°F (0°C) Product ≥ 200°F (93°C)
Heat Transfer Coefficient, U_t Heater to Surface	20-40 Btu/hr•°F•ft² (114-227 w/m²•°C)		15-30 Btu/hr•°F•ft² (85-170 w/m²•°C)	20-40 Btu/hr•°F•ft² (114-227 w/m²•°C)	20-40 Btu/hr•°F•ft² (114-227 w/m²•°C)	20-40 Btu/hr•°F•ft² (114-227 w/m²•°C)		20-40 Btu/hr•°F•ft² (114-227 w/m²•°C)	20-40 Btu/hr•°F•ft² (114-227 w/m²•°C)
Bond Shear	150 lbs/in² (1,034 kPa)	225 lbs/in² (15.8 kg/cm²)	425 lbs/in² (31kg/cm²)	100-150 lbs/in² (689-1,034 kPa)	100-150 lbs/in² (689-1,034 kPa)	1,000-1,800 lbs/in² (6,895-12,411 kPa)		1,000 lbs/in² (6,895 kPa)	N/A
Start-Up Technique	No special curing procedure required if installed with TFK channel; otherwise, compounds must be cured for 4-12 hours at 160°F to 212°F (71°C to 100°C).			Must be heated to 200°F to promote surface wetting and curing.[1]	Must be heated to 200°F to promote surface wetting and curing.[1]	No special curing procedure required. T-80 and T-85 cure in 4-12 hours at 212°F to 325°F (100°C to 163°C).		No special curing procedure required.	No special curing procedure required.
Method of Installation	Hand trowel or use with TFK channel (Carbon steel tube tracers are not recommended) (Primer must be applied to aluminum surfaces)			Use with TFK channel	Place the EFS-1 between heat source and equipment	Manual or air-powered cartridge gun (Electrically heated barrel available)		Hand trowel	Hand trowel on plate-type heating coils
Water Soluble	Yes			No	No	No		No	No
Shelf Life	1 year			Indefinite	Indefinite	90 days for 1/10-gallon (0.379-liter) cartridges 30 days for 1 and 5-gallon (3.79 and 18.93-liter) cans (Shelf life can be extended up to 1 year if material is stored below 40°F [4°C])		1 year (unmixed)	Indefinite
Container Size Available	1-gallon (3.79-liter) can 2-gallon (7.57-liter) pail 5-gallon (18.93-liter) can		1-gallon (3.79-liter) pail 2-gallon (7.57-liter) pail	4-foot (1.22-m) lengths 25 sections per box	12-inch (305-mm) wide 1/8-inch (3.2-mm) thick sections up to 500 feet (152 m) in length	1/10-gallon (0.379-liter) cartridge 1 gallon (3.79-liter) pail 5 gallon (18.93-liter) can		1-quart (0.946-liter) can 1-gallon (3.79-liter) pail	1-quart (0.946-liter) can 1-gallon (3.79-liter) pail 5-gallon (18.93-liter) can
Weight per Unit	13 lbs (5.9 kg)/gal		18 lbs (8.3 kg)/gal	0.33 lb/ft (0.05 kg/m)	0.80 lb/ft (0.13 kg/m)	13 lbs (5.9 kg)/gal		13 lbs (5.9 kg)/gal	13 lbs (5.9 kg)/gal

Note

1. SnapTrace and EFS-1 heat transfer compounds must be heated to a temperature of at least 200°F (93°C) to promote surface wetting and curing. For applications where the heating media and the equipment will be below 200°F (93°C), the materials must be heated to 200°F (93°C) for optimal performance at the lower operating temperature.

THERMON **The Heat Tracing Specialists®**

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