



## PRODUCT DATASHEET

# T-99

## HIGH TEMPERATURE HEAT TRANSFER COMPOUND

### APPLICATION

T-99 is a specialty high temperature heat transfer compound formulated to provide high thermal stability and bond strength up to 1204°C (2200°F). Unlike other grades of heat transfer compounds, it is also electrically non-conductive (when cured). It is supplied ready to use and may be applied by hand troweling to fill TFK channels.

T-99 resists thermal and mechanical shock and provides an efficient heat transfer rate with a high bond strength. In order to promote good surface wetting and ensure contact, the surfaces of traced valves, pumps and other equipment must be prepared just as though a paint or primer is to be applied. Oil, grease, dirt, rust, scale, etc., must be removed. The use of solvents and emulsions along with scraping, chipping and wire brushing are common pre-treatment techniques for steel surfaces.

### SPECIFICATIONS/RATINGS

Container sizes.....3.79 liter (1 gallon)  
 Maximum exposure temperature.....1204°C (2200°F)  
 Minimum exposure temperature.....-196°C (-320°F)  
 Minimum installation temperature ..... 0°C (32°F)  
 Heat transfer coefficient,  $U_t$ , tracer to pipe wall  
 ..... 85-170 W/m<sup>2</sup> · °C (15-30 Btu/hr · °F · ft<sup>2</sup>)  
 Shelf life (unopened).....18 months  
 Bond Strength (ASTM D1002).....> 2760 kPa  
 (> 400 lbs/in<sup>2</sup>)  
 Water Soluble Chlorides (ASTM C1218) .....< 100 ppm  
 Water-soluble .....yes

### BENEFITS

- Increase heat transfer rates significantly over bare tracing, reducing number of tracers and steam traps
- Fewer steam tracers reduce installation time; ChannelTrace eliminates waste
- Thermally stable at continuous temperature exposures up to 1204°C (2200°F)
- Electrically non-conductive (when cured)
- Exceptional bond strength to resist thermal expansion and contraction
- High shock resistance when exposed to extensive thermal cycling
- Smooth texture for ease of workability
- Water soluble for easy clean-up



### DESCRIPTION

T-99 is a heat transfer compound that hardens when cured.

### OPTIONS

TFK steel channel provides additional protection for a Thermonized tracer prior to the insulation of the pipe or equipment.

Banding and tools to secure steam tracing (TFK channel and/or tubing) to pipe or equipment.

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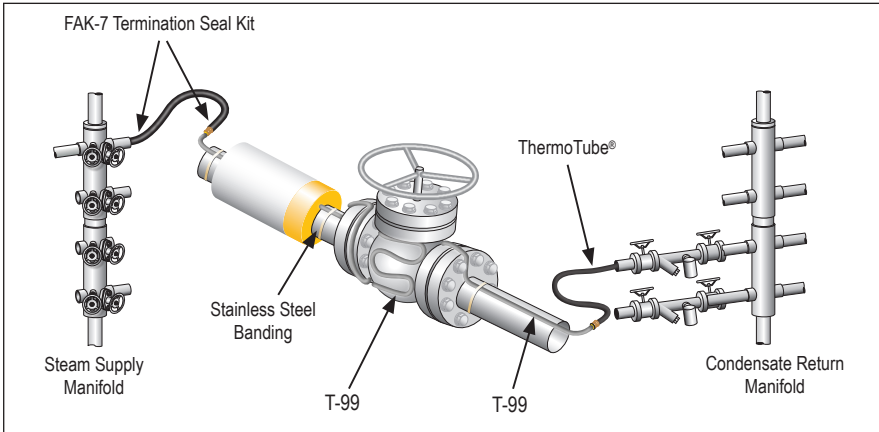


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**T-99**

HIGH TEMPERATURE HEAT TRANSFER COMPOUND

**TYPICAL STEAM TRACING SYSTEM**



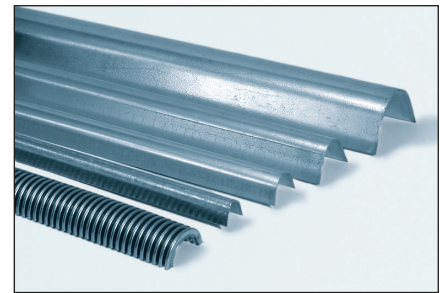
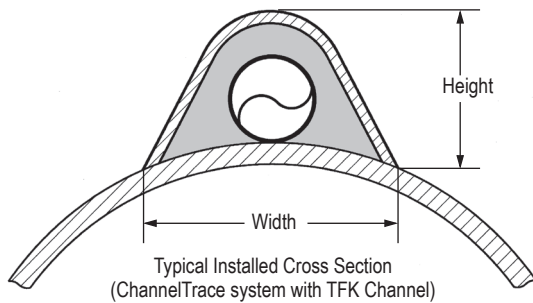
**BASIC ACCESSORIES**



**Stainless Steel Banding** used to secure tracer to piping.

- **T2SSB** (.50" x .020") for 3/8" and 1/2" O.D. tube tracers.
- **T3SSB** (.50" x .030") for 3/4" and 1" O.D. tube tracers and NPS pipe tracers.
- **T34PB-CR** crimp seals for fastening tensioned banding.
- **C001** banding tool for applying tension to T2SSB or T3SSB banding.
- **1950A** crimping tool for T34PB-CR seals.

Catalog Number <sub>1</sub>	Nominal TFK Channel Dimensions				Channel Material
	Width mm (in)	Height mm (in)	Length m (ft)	Thickness mm (in)	
TFK-4SS	30 (1.18)	21 (.84)	1.2 (.04)	1.0 (.04)	Rigid 304 Stainless Steel
TFK-6	51 (2.0)	25 (1.0)	1.2 (.04)	0.7 (.03)	Flexible Stainless Steel
TFK-7SS	41 (1.62)	25 (1.0)	1.2 (.04)	1.0 (.04)	Rigid 304 Stainless Steel
TFK-8SS	17 (0.66)	19 (.75)	1.2 (.04)	1.0 (.04)	Rigid 304 Stainless Steel
TFK-9SS	64 (2.50)	44 (1.75)	1.2 (.04)	1.6 (.06)	Rigid 304 Stainless Steel

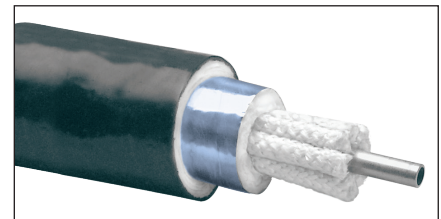


**TFK Channels for ChannelTrace Systems,**

- TFK-4** for 3/8" or 1/2" O.D. tubing.
- TFK-6** flexible stainless steel for 3/8" - 3/4" tubing.
- TFK-7** for 3/4" O.D. tube or 1/2" NPS pipe tracers.
- TFK-8** for 3/8" tubing on small lines.
- TFK-9** for 1" O.D. tube or 1" NPS pipe tracers.

(Galvanized steel is standard for rigid channels— use optional stainless steel above 410°F (210°C).)

1. Galvanized TFK channels are only used up to 210°C (410°F). Stainless steel channels are required for higher temperatures.



**ThermoTube HT & HTX** high temperature pre-insulated tubing used for steam supply and condensate return lines. Available in various materials and ratings.