



Thermal Insulation Chemicals

TIC CORPORATION

Product Data Sheet TIC 9060 Heat Transfer Cement

Description

TIC 9060 Heat Transfer Cement is a special paste-type of cement, which maintains regular temperature of Pipeline when crude oil and high viscosity of oil transfer through pipeline.

TIC 9060 Heat Transfer Cement has excellent heat conduction feature, which can prevent regional overheating and temperature drops of pipeline by filling the space between process pipe and tracer.

TIC 9060 Heat Transfer Cement easily repaired and applied and its excellent heat conduction feature maintains heat conduction regularly preventing regional overheat and temperature drops of pipeline.

TIC 9060 Heat Transfer Cement contains no asbestos, lead, mercury, or mercury compounds.

Properties

Property	Specification	Test method
Color	Black	TSTM-01
Application	Trowel	TSTM-06
Density	1.65± 0.05 kg/ℓ	ASTM D 1475
Weight non-volatile	80 ± 1 %	ASTM D 1644
Coverage	35.36 kg/m ² (21.43 ℓ/m ²) Dried film thickness: 15 mm	TSTM-07
Drying time	Set to touch: 1 hour Dry through: 24 hours	ASTM D 1640
Service temperature limits	(Temperature at coated surface) -100 °C ~ 600 °C (-148 °F ~ 1112 °F)	TSTM-04
Heat transfer coefficient	100 ~ 200 Kcal/m ² ·hr·°C 20.48 ~ 40.96 Btu/ft ² ·hr·°F	ASTM C 518
Thermal conductivity	10 ~ 12 Kcal/m·hr·°C at 200 °C	ASTM C 518
Bonding strength	≥ 1.5 MPa	ISO 4587

Limitations

Store and apply between 4 °C (40 °F) and 38 °C (100 °F).

Do not apply it below 0 °C (32 °F).



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Application Guide

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Material Preparation

DO NOT THIN. Surface areas where TIC 9060 Heat Transfer Cement is to be installed must be reasonably clean. Dust, scale and dirt should be removed with a wire brush and oil and grease films may be removed with solvent. Protective coatings and mill varnish may be removed with a suitable stripper.

Application

- 1. Installation on Straight Run Piping** - When install tube tracers, pressure test tracing for leaks with steam pressure equal to or greater than the normal operating pressure or with suitable hydrostatic tests and repair until free of leak. Fill channel with TIC 9060 Heat Transfer Cement and use trowel to groove compound for tube tracer. The trowel should be used to remove heat transfer cement from the channel leaving "V" groove. The mass of compound removed corresponds to the space which will be occupied by the tracer tube. Press channel over tracer. If two or more tracers are used, they should be equally spaced circumferentially around the pipe.
- 2. Installation on Valves, Flanges, Elbows and Pumps** - When install tube tracers, pressure test tracing for leaks with steam pressure equal to or greater than the normal operating pressure or with suitable hydrostatic tests and repair until free of leak. Hand trowel heat transfer cement over tracers so that the tracer tube is completely embedded in compound. Fill all voids between surface and tracer to ensure maximum heat transfer. Cure heat transfer cement. If the maximum thickness of the compound is greater than 1 inch (25 mm), best results and more rapid overall application will be obtained by installing these particular grades in two layers with a drying time of at least 24 hours between applications.

Clean-up

Wearing gloves and safety glasses is recommended. However, TIC 9060 Heat Transfer Cement may be removed compound from hands, arms, etc. by waterless soap.

Note

Important: We make no other warranties and expressly disclaim any warranties of merchantability or fitness for a particular purpose. If a product fails to meet this limited warranty, purchaser's sole and exclusive remedy is replacement of the product or, at our option, refund of the purchase price. Our acceptance of any orders for the product is expressly conditional upon purchaser's assent to the terms on the applicable invoice.

Adequate Tests: The information contained herein we believe is correct to the best of our knowledge and tests. The recommendations and suggestions herein are made without guarantee or representation as to results. We recommend that adequate tests be perform by you to determine if this product meets all of your requirements. The shelf life can be affected by storage and handling conditions. When products are stored in the original unopened container in an enclosed area and protected from contamination, moisture and extreme temperatures, the warranted shelf life is twelve months from the date of shipment to the original purchaser.