



Thermal Insulation Chemicals

TIC CORPORATION

Product Data Sheet TIC 4055/56 Vapor Barrier Mastic

Description

TIC 4055/56 Vapor Barrier Mastic is a tough, flexible, and fire resistive elastomeric finish for protection of outdoor thermal insulation. It contains Chlorosulfonated polyethylene rubber. It is excellent Vapor barrier for low temperature insulation on tanks, pipe-work, ductwork, vessels, and fittings.

TIC 4055/56 Vapor Barrier Mastic provides outstanding weather barrier protection, showing good color retention, excellent chemical resistance, and durability.

TIC 4055/56 Vapor Barrier Mastic trowels easily and smoothly without drag or excessive stringing. It features higher than average volume solids, reducing the number of gallons that need to apply.

TIC 4055/56 Vapor Barrier Mastic contains no asbestos, lead, mercury or mercury compounds.

Properties

Property	Specification	Test method
Color	TIC 4055 White / TIC 4056 Gray	TSTM-01
Application	Trowel or rubber glove	TSTM-06
Density	1.20± 0.05 kg/ℓ	ASTM D 1475
Volume non-volatile	42 ± 1 %	ASTM D 1644
Weight non-volatile	60 ± 1 %	ASTM D 1644
Coverage	3.43 ~ 5.14 kg/m ² (2.86 ~ 4.28 ℓ/m ²) Dried film thickness: 1.2 ~ 1.8 mm	TSTM-07
Drying time	Set to touch: 5 hours Dry through: 48 hours	ASTM D 1640
Service temperature limits	(Temperature at coated surface) -46°C ~ 121°C (-51°F ~ 250°F)	TSTM-04
Water Vapor permeance	≤ 0.02 perms (DFT 1.3 mm)	ASTM E 96
Wet flammability	≥ 44°C (111°F)	ASTM D 93
Surface burning characteristics	Classification: CLASS A Flame spread: 10 (0~25) Smoke developed: 15 (0~450) Surface: Applied over fiber reinforced cement board at a coverage rate of 25 sq.ft/gal (0.61 m ² /ℓ)	ASTM E 84

Limitations

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

Always test plastic materials for compatibility when using a solvent base product.

Select TIC 4050/51 Vapor Barrier Coating for Brush or Airless Spray application.

- ❖ Chlorosulfonated polyethylene rubber is generally called Hypalon, the Trademark of DuPont Performance Elastomers, and is not produced by DuPont anymore.

Material Preparation

DO NOT THIN. Apply only to clean dry surfaces. Keep container closed when not in use to prevent solvent evaporation.

Application

To prevent water vapor and moisture infiltration, proper and complete flashing is required. Follow flashing specifications.

- 1. Normal Service** - Apply a tack coat of TIC 4055/56 Vapor Barrier Mastic at a thickness of 1/32 inch (0.8 mm). This is equivalent to 2 gal/100 sq.ft (0.8 ℓ/m²). Smooth membrane to avoid wrinkles and overlap all seams at least 2 inches (5 cm). Apply a finish coat of TIC 4055/56 Vapor Barrier Mastic at a minimum thickness of 3/64 inch (1.2 mm). This is equivalent to 3 gal/100 sq.ft (1.2 ℓ/m²). This finish coat shall apply no later than 2 hours after the tack coat and shall completely cover membrane. This application shall provide a minimum dry film thickness of 33 mils (0.8 mm).
- 2. Severe and Cryogenic Service** - Increase the tack coat coverage to 3 gal/100 sq.ft (1.2 ℓ/m²) and the finish coat to 4 gal/100 sq.ft (1.6 ℓ/m²). (Allow the tack coat to set up before applying the finish coat on vertical surfaces.) This application shall provide a minimum dry film thickness of 46 mils (1.2 mm).
- 3. Trowel** - Use clean tools. Work in long even strokes to ensure uniform thickness. Wet tool with detergent foam (not soap) occasionally to prevent a buildup of dried mastic.
- 4. Rubber Glove** - Best appearance may achieved by smoothing wet TIC 4055/56 Vapor Barrier Mastic with detergent foam (not soap) on a clean glove or brush, being careful not to pick up any TIC 4055/56 Vapor Barrier Mastic onto the glove or brush.

Clean-up

Use xylene (flammable) or chlorinated solvent (non-flammable) for cleaning equipment. (Dried TIC 4055/56 Vapor Barrier Mastic is extremely difficult to remove.)

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 performed 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.