



Thermal Insulation Chemicals

TIC CORPORATION

Product Data Sheet TIC 5030 N.T. PU Adhesive

Description

TIC 5030 N.T. PU Adhesive is two components, high strength thermosetting urethane adhesive containing no flammable solvents. It is designed to bond various types of low-temperature insulation to themselves and to metal and masonry substrates. After curing, it forms a strong, yet flexible bond capable of withstanding thermal shock and mechanical impact.

TIC 5030 N.T. PU Adhesive can be used as both an attachment adhesive and joint sealant in low temperature installations using cellular glass, polystyrene or rigid board stock polyurethane foam insulations. It contains no asphalt and can be top coated with solvent base products without bleed through.

TIC 5030 N.T. PU Adhesive contains no asbestos, lead, mercury, or mercury compounds.

Properties

Property	Specification	Test method
Color	Beige (part A, paste) / Brown (part B, liquid) / Beige(mixed)	TSTM-01
Application	Trowel	TSTM-06
Density	Part A - 1.53 ± 0.05 kg/ℓ Part B - 1.22 ± 0.05 kg/ℓ Mixed (A&B) - 1.47 ± 0.05 kg/ℓ	ASTM D 1475
Volume non-volatile	99 ± 1 % (mixed)	ASTM D 1644
Weight non-volatile	99 ± 1 % (mixed)	ASTM D 1644
Coverage	2.97 kg/m ² (2.02 ℓ/m ²) Dried film thickness: 2.0 mm	TSTM-07
Mixing ratio	Weight - part A : part B = 10 : 1 Volume - part A : part B = 8 : 1	TSTM-16
Pot life	1 ~ 2 hours (25±2°C, 50±2% RH)	TSTM-09
Drying / curing time	Set to touch: 8 hours Dry through: 24 hours Curing time: 48 hours Maximum strength: 7 Days	ASTM D 1640
Service temperature limits	(Temperature at coated surface) -196 °C ~ 100 °C (-321 °F ~ 212 °F)	TSTM-04
Wet flammability	≥ 93 °C (200 °F)	ASTM D 3278
Lap shear strength	≥ 2.0 MPa	ISO 4587

Limitations

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

Allow 48 hours curing time at 25 °C (77 °F) minimum before placing in service.

Pot life will be longer at lower temperatures, shorter at higher temperatures.

Part B is sensitive to moisture and humidity. Keep container tightly sealed when not in use.

Do not heat part A, part B, or the mixed material to above 38 °C (100 °F).



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Application Guide

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N.T. PU Adhesive

Material Preparation

DO NOT THIN. Stirring should not be necessary, but if part A has remained undisturbed for any extended period, stir well. Do not use sticks or paddles, which could splinter or otherwise contaminate the product.

Containers must be kept closed and in dry storage when not in use. Blend only the amount of material, which can apply in 1 hour. Mixing should be continued for 3 minutes maximum with a suitable air or electric mixer operating at low speed, until the TIC 5030 N.T. PU Adhesive is smooth and completely homogeneous. Do not over mix. Do not heat part A, part B, or the mixed material to above 38 °C (100 °F). Exposure to vapors of heated product may be harmful. Heated vapors are potential respiratory and skin sensitizers, and possible eye irritants. Provide adequate ventilation in enclosed areas.

Application

Apply only to clean dry surfaces. TIC 5030 N.T. PU Adhesive may apply to either or both surfaces at the recommended coverage rate. Surfaces must be bond within 1 hour after application of the adhesive. On rough surfaces, a thicker application of TIC 5030 N.T. PU Adhesive is required as necessary to assure complete contact between the insulation and the substrate.

Clean-up

Before adhesive cures, clean tools and equipment with chlorinated solvent (non-flammable) or mineral spirits (flammable). Dried TIC 5030 N.T. PU Adhesive 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 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.