TIC® Thermal Insulation Chemicals
TIC CORPORATION

Product Data Sheet TIC 5066 PU Adhesive

Description

TIC 5066 PU Adhesive is polyether polyol based two-component adhesive. Main material is made of an organic compound containing Hydroxyl-group. A hardener is made of isocyanates and mixing ratio between part A and part B is 5 : 1. It has good durability and elasticity

TIC 5066 PU Adhesive is used for attaching PIR, RPUF, Plywood, Metal, Triplex, and Pin in containment of LNG ship.

TIC 5066 PU Adhesive forms strong boding condition, which can be durable to thermal and mechanical impacts.

TIC 5066 PU Adhesive has better viscosity and thixotropy than TIC 5060 LNG Shipping PU Adhesive.

TIC 5066 PU Adhesive contains no asbestos, lead, mercury, or mercury compounds.

Properties

Property	Specification	Test method
Color	Beige(part A) / Brown(part B) Beige(mixed)	TSTM-01
Application	Trowel	TSTM-06
Density	Part A - 1.60 ± 0.05 kg/ℓ Part B - 1.22 ± 0.05 kg/ℓ Mixed (A&B) - 1.55 ± 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	3.13 kg/㎡ (2.02 ℓ/㎡) Dried film thickness: 2.0 ㎜	TSTM-07
Mixing ratio	Weight - part A : part B = 5 : 1	TSTM-16
Pot life	40 ~ 80 minutes(25±2℃, 50±2% RH)	TSTM-09
Drying / curing time	Set to touch: 1 hour Dry through: 10 hours Curing time: 20 hours Maximum strength: 48 hours	ASTM D 1640
Service temperature limits	(Temperature at coated surface) -196 ℃ ~ 100 ℃ (-321 ℉ ~ 212 ℉)	TSTM-04
Wet flammability	≥ 93 ℃ (200 ℉)	ASTM D 3278
Lap shear strength	≥ 10 MPa	ISO 4587

Limitations

Store and apply between 4 ℃ (40 ℉) and 38 ℃ (100 ℉).

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.

106, 5sandan 2-ro, Seongnam-myeon, Dongnam-gu, Cheonan-si, Chungcheongnam-do, Republic of Korea
T: +82 41 558 4252 | F: +82 41 558 9360 | E: tic@tickorea.com www.tickorea.com

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Application Guide TIC 5066 PU Adhesive

Material Preparation

Substrate should be dry and free from dust, oil and other contamination. When you use metal, do primer coating on the surface. Primer coating and solvent cleaning are appropriate method for material preparation. Polystyrene will not be attached to TIC 5066 PU Adhesive.

Application

Mix resin and a hardener according to given mixed ratio before use. The adhesive can only be used within Pot Life. After Pot Life, it become gel or can't be used. The amount to be only used within Pot Life should be mixed. Pot Life depends on the temperature and amount of mixture. If the temperature is high and using large amount, the Pot Life would be shortened, while Pot Life would be increased in low temperature. If you put too much of a hardener, the viscosity of mixture will be lowered and film will be easily broken. TIC 5066 PU Adhesive can be used by machine. This adhesive should be applied only at one surface and should not come in contact with any moisture. Please make sure to keep each pail sealed at all times and should be protected from moisture.

Clean-up

Before adhesive cures, clean tools and equipment with chlorinated solvent (non-flammable) or mineral spirits (flammable). Dried TIC 5066 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.

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