

TR3

Thermally Conductive Pressure-Sensitive Transfer Adhesives

Saint-Gobain® ThermaCool® TR3 is manufactured by **Saint-Gobain** Performance Plastics Corporation, Tape Solutions business, and comes with a unique thermally conductive pressure-sensitive acrylic transfer adhesive. The adhesive is supplied with one release liner. This material provides an easy method for adding an adhesive layer to gap filler silicone materials and thermally conductive fabrics that are not supplied with an integral adhesive. The adhesive can also be used in place of mechanical fasteners to bond heat sinks to components.

ThermaCool TR3 is specially intended to provide the following features:

- Thermally conductive transfer adhesive provides ability to customize parts in the field
- Compliant conductive adhesive minimizes effects of surface roughness and improves thermal performance
- Adhesive formulation is designed to exhibit excellent thermal properties at application pressures as low as 10 psi
- Specifically formulated adhesive allows parts to be reworked without damage to sensitive components
- High peel strength adhesion to minimize air entrapment

Available Sizes

Standard thickness: .003 in. (.076 mm)

Master roll size: Up to 40 in. wide. Length varies.



APPLICATIONS

- Replacement of mechanical fasteners
- Custom application of adhesives to gap fillers or thermally conductive fabrics
- Pressure-sensitive adhesive tape can be pre-applied to a heat sink to minimize assembly costs
- Adheres to various surfaces to create a pressure-sensitive laminate material

ThermaCool TR3 — Properties

Performance tests are run using standard test procedures. The values presented are typical values and should not be used for specification purposes.

Property	Test Method	Value
Thickness: mil	ASTM D1000	3.0
Thermal Conductivity: W/mk	ASTM E1530	0.40
Thermal Impedance: °C in ² /W	ASTM D1530 @ 10 psi	0.30
Dielectric Strength	ASTM D1000	N/A
Adhesion to Steel: oz/in	ASTM D1000	30.0
Adhesion to liner: oz/in	ASTM D1000	Easy release
Operating Temperature Range (°F)	-	-20 to +300

Important Instructions

Because **Saint-Gobain** cannot anticipate or control every potential application, we strongly recommend testing of this product under individual application conditions prior to commercial use.

Surfaces must be clean and free of oil, grease, moisture, dust and dirt. Isopropyl alcohol is good for cleaning the surface.

Apply a uniform pressure of 15 psi (103 kPa) to promote good contact between the material to be bonded and the tape. The service temperature should be between -20°F and +300°F (-28°C to +149°C).

The adhesion between the substrate and the tape increases with time, typically reaching final bond strength in 72 hours. Heating the product above 105°F (40°C) will accelerate the adhesion process.

Shelf Life

24 months from date of shipment, when stored in original packaging at temperatures up to 70°F (21°C), < 50% relative humidity, and away from direct sources of heat and direct sunlight.

IMPORTANT: It is the user's responsibility to ensure the suitability and safety of Saint-Gobain products for all intended uses and that the materials to be used comply with all applicable regulatory requirements. Saint-Gobain assumes no responsibility for any product failures that occur due to your actions or inactions, including your use, design, fabrication or application of the products into which the materials are incorporated.

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