3M™ Double-Coated Polyethylene Foam Tape 9R090

Product Description
3M™ Double-Coated Polyethylene Foam Tape 9R090 combines a conformable closed cell foam with a high-strength acrylic adhesive, providing good initial tack and offering high ultimate adhesion to a wide variety of surfaces. In addition, Foam Tape 9R090 also possesses good shear properties which provide long-term holding power, even under elevated temperature and environmental conditions.

Application Techniques
Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure (approximately 15 psi [100 kPa]) helps develop better adhesive contact and improves bond strength.

To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified.

Some typical surface cleaning solvents are isopropyl alcohol or N-heptane. Note: Carefully read and follow the manufacturer’s precautions and directions for use when working with solvents.

Ideal tape application temperature range is 70°F to 100°F (21°C to 38°C). Initial tape application to surfaces at temperatures below 50°F (10°C) is not recommended because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory.

Application Ideas
Foam Tape 9R090 can be used for solar module assembly.

Note that, due to variation in the process of tape application and the requirements of different environments, Foam Tape 9R090 should be tested for the conditions of a given application prior to use.

Shelf Life
24 months from date of manufacture when stored in original carton at 22°C and 50% relative humidity.

ISO 9002/ISO 14000
3M Foam Tape 9R090 is manufactured at ISO 9002 and ISO 14000 registered facilities.

Technical Data
Note: The technical information and data in this document should be considered representative or typical only and should not be used for specification purposes.

Properties | Typical Values
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Adhesive Type | Acrylic
Tape Thickness | 0.035 in. (0.9 mm) ±20%
Adhesive Carrier | Closed cell PE foam
Color | White, Gray, Black
Release Liner Type | PET Film
Release Liner Color | Clear
Release Liner Thickness | 0.0015 in. (0.038 mm)
Approximate density (foam only) | 6.5 lb/ft³ (104 kg/m³)

Properties | Typical Values
---|---
Adhesion to stainless steel ASTM D3330 – 90° angle peel, jaw speed 12 in/min, 72 hour dwell time, 5 mil Al foil backed, at 22°C, 50% RH | 5 kg/in (11 lb/in)
Static shear ASTM D3654 – 0.5 inch² overlap will hold listed weight for 10,000 mins. | 1000g (@22°C) | 500g (@50°C) | 200g (@70°C)
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