

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.

Construction

Properties	Typical Values
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/ft ³ (104 kg/m ³)

Typical Physical Properties

(Data not for specification purposes)

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 inch ² overlap will hold listed weight for 10,000 mins.	1000g (@22°C) 500g (@50°C) 200g (@70°C)

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.

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

United States

3M Renewable Energy Division
800 755 2654

Germany

49 2131 144450

Denmark

45 43 480100

Spain

34 91 3216000

France

33 1 30316161

United Kingdom

44 1344 858000

Italy

39 02 70351

Singapore

65 6450 8888

China

86 21 62753535

Korea

82 2 3771 4043

India

91 80 22231414

Canada

800 364 3577

Brazil

0800 13 23 33

Mexico

52 55 52702250

Taiwan

886 933 896752

Japan

81 3 3709 8283

Malaysia

603 78062888

Other Areas

800 755 2654

For more information on our solar manufacturing product line, contact 3M Renewable Energy at 800-755-2654 or visit us at www.3M.com/solar.

Technical Information: The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

Warranty, Limited Remedy, and Disclaimer: This 3M product is sold or made available "AS IS." 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE.

Limitation of Liability: Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

**Renewable Energy Division**

3M Center, Building 235-1S-67
St. Paul, MN 55144-1100
1-800-755-2654
www.3M.com/solar

Please recycle. Printed in USA.
© 3M 2013. All rights reserved.
Issued: 5/13 9220HB
98-0150-0307-6

3M is a trademark of 3M Company.
Used under license by
3M subsidiaries and affiliates.