Double Coated Removable Foam Tape with Adhesive 100

4658F

Technical Data **September, 2011**

Product Description

3M™ Double Coated Removable Foam Tape 4658F is a clear, double coated acrylic foam tape that removes cleanly from many surfaces. 3M™ Adhesive 100 is a firm acrylic adhesive system that offers high ultimate bond strength, good temperature resistance, solvent resistance and static shear holding power. 3M tape 4658F can reach high bond strengths and some high surface energy substrates and may become difficult to remove.

Construction

Product		**3M Tape 4658F**
Adhesive Type:		100
Foam Type:		Acrylic
Thickness:	Nominal	1/32 in., 0.031 in. (.08 mm)
	Tolerance	± 10%
Color:		Clear
Release Liner:		0.003 in. (.08 mm) Clear Polyester Film
Approximate Density: Foam Only	lb./ft^3 (kg/m^3)	60 (960)

Typical Physical Properties

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

Peel Adhesion: To Stainless Steel, Room Temperature, 90° Angle Peel, 12 in./minute Jaw Speed (308 mm/min.), 72 hour Dwell ASTM D-3330	15 lb./in. width (263 N/100 mm)	
Static Shear: 1/2 in.^{2} (3.23 cm^2) overlap, Will hold listed gram weight for 10,000 minutes. ASTM D-3654	72°F (22°C) 120°F (49°C) 150°F (66°C)	1000 g. 750 g. 500 g.
Temperature Resistance: Short Term (Minutes, Hours)	212°F (100°C)	
Long Term (Days, Weeks)	175°F (80°C)	
U.V. Resistance:	Excellent resistance to direct exposure to sunlight or other sources of ultraviolet (U.V.) light.	
Solvent Resistance:	No apparent degradation when exposed to splash testing of most hydrocarbon solvents.	
Shelf Life:	24 months from date of manufacture when stored in original cartons at 70°F (21°C) and 50% relative humidity.	

Available Sizes

*Standard Stock Sizes:	1/2 in. x 27 yds. (12 mm x 25 m) 3/4 in. x 27 yds. (19 mm x 25 m) 1 in. x 27 yds. (25 mm x 25 m)
Slitting Tolerance:	± 1/32 in., ± 0.031 in. (± 0.8 mm)
Maximum Width:	46 1/2 in. (1.18 m)
Maximum Roll Length:	175 yds. (160 m)

*Questions regarding other possible tape sizes and shipping quantities should be directed to either your 3M sales represenative or 3M's customer service at 1-800-362-3550.

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Application Techniques

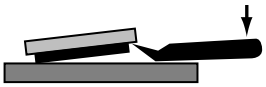
- Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improve bond strength.
- To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Typical surface cleaning solvents are isopropyl alcohol (rubbing alcohol) and water or heptane. **Note:** Carefully read and follow manufacturer's precautions and directions for use when using solvents.
- Ideal tape application temperature 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 may become too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory.

Design Considerations

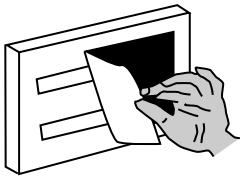
- As a general rule, four square inches of tape should be used for each pound of weight to be supported in static load. More or less tape may be required depending upon the particular application. User evaluation is, therefore, required to determine optimal tape usage.
- Care should be used when bonding to surfaces with very low internal strength such as painted plaster board, fabric or cloth, wallpaper, blown vinyl, etc. since delamination of that surface may occur.
- Care should also be taken with wood veneers and highly polished wood as very glossy surfaces may leave an image when the tape is removed.

Removal Techniques

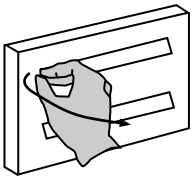
For rigid surfaces, lever or pry apart the substrates to break the bond.



For flexible surfaces, peel back slowly to ensure clean removal.



To remove tape from substrate, pull back corner and peel off quickly.



Application Ideas

- Signs
- Smoke Alarms
- Point of Purchase and other Displays
- Holding Electronic Accessories
- Dispensers
- Nameplates
- Exhibitions
- Air Fresheners
- Picture Frame Tabs

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.

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Industrial Adhesives and Tapes Division
3M Center, Building 225-3S-06
St. Paul, MN 55144-1000
800-362-3550 • 877-369-2923 (Fax)
www.3M.com/industrial

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