



Technical Data Sheet

3M™ Double Coated Removable Foam Tape
4658F



[Product Details](#)



[Regulatory Info/SDS](#)

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.

Technical Information Note

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

Typical Physical Properties

| Attribute Name | Value |
|----------------|--|
| Color | Clear |
| Adhesive Type | 100 |
| Foam Density | 960 kg/m ³ (60 lb/ft ³) |
| Foam Type | Acrylic |

| Attribute Name | Value |
|---------------------|-----------------|
| Thickness: Nominal | 0.8 mm (31 mil) |
| Liner | Polyester Film |
| Liner Thickness | 0.08 mm (3 mil) |
| Primary Liner Color | Clear |
| Thickness Tolerance | ± 10 % |

Typical Performance Characteristics

Substrate: Stainless Steel
Temperature: 22 °C (72 °F)
Dwell Time: 72 h
Backing: 5 mil Aluminum Foil

| Attribute Name | Test Method | Value |
|-------------------|-------------|---------------------------------|
| 90° Peel Adhesion | ASTM D3330 | 26 N/cm (15 lb/in) ¹ |

¹ 12 in/min (300 mm/min)

Static Shear

Test Method: ASTM D3654

| Temperature | Value |
|----------------|----------------------|
| 22 °C (72 °F) | 1,000 g ¹ |
| 49 °C (120 °F) | 750 g ¹ |
| 70 °C (158 °F) | 500 g ¹ |

¹ 1/2 in x 1 in sample area, test terminated at 10,000 minutes

| Attribute Name | Value |
|-----------------------------------|------------------------------|
| Short Term Temperature Resistance | 100 °C (212 °F) ¹ |
| Long Term Temperature Resistance | 80 °C (175 °F) ² |

¹ Short Term (minutes, hour)

² Long Term (day, weeks)

Typical Environmental Performance

| Attribute Name | Value |
|--------------------|---|
| Solvent Resistance | No apparent degradation when exposed to splash testing of most hydrocarbon solvents. |
| UV Resistance | Excellent resistance to direct exposure to sunlight or other sources of ultraviolet (U.V.) light. |

Handling/Application Information

Application Examples

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

Application Techniques

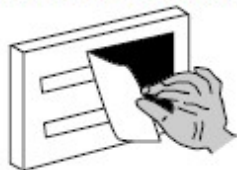
- Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improve bond strength.
- To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Typical surface cleaning solvents are 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.

Removal Techniques

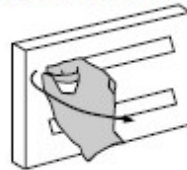
For rigid surfaces, lever or pry apart the substrates to break the bond.



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



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



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.

Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original packaging, out of direct sunlight. For best performance, use this product within 24 months from date of manufacture.

Available Sizes

| Attribute Name | Value |
|---------------------------|--------------------|
| Maximum Available Width | 1.18 mm (46.5 in) |
| Maximum Length | 160 m (175 yd) |
| Normal Slitting Tolerance | ±0.8 mm (±1/32 in) |

Available Sizes - Detailed

1/2 in x 27 yd (12 mm x 25 m)
3/4 in x 27 yd (19 mm x 25 m)
1 in x 27 yd (25 mm x 25 m)

Automotive Disclaimer

Select Automotive Applications:

This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

Information

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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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