Technical Data Sheet

3M™ Double Coated Removable Foam Tape 4658F

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

Property	Values	Additional Information
Adhesive Type	100	
Foam Type	Acrylic	
Color	Clear	
Liner Color	Clear	View
Test Name: Primary		
Liner	Polyester Film	
Liner Thickness	0.08 mm	
Thickness: Nominal	0.8 mm	
Thickness: Nominal	31 mil	
Liner Thickness	3 mil	

Thickness Tolerance	± 10 %
Foam Density	960 kg/m³
Foam Density	60 lb/ft³

Typical Performance Characteristics

Property	Values	Additional Information
90° Peel Adhesion Stainless Steel	240 oz/in	View

Test Method: ASTM D3330

Test Name: 90° Peel Adhesion
Dwell/Cure Time: 72.0
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: Stainless Steel
Backing: 2 mil PET

Notes: 12 in/min (300 mm/min)

90° Peel Adhesion Stainless Steel	26.3 N/cm	View

Notes: 12 in/min (300 mm/min) ASTM D3330 72 hour dwell on Stainless Steel at 23°C (72°F) and 50% RH Backing: 2 mil Polyester

Short Term Temperature Resistance	212 °F	View

Test Condition: Short Term (minutes, hour)

Short Term Temperature Resistance	100 °C	View

Test Condition: Short Term (minutes, hour)

Long Term Temp C	80 °C	View

Test Condition: Long Term (day, weeks)

Long Term Temp F	175 °F	View

Test Condition: Long Term (day, weeks)

Static Shear	1000 g	View

Test Method: ASTM D3654

Test Condition: Room Temperature

Notes: 1/2 in x 1 in sample size; Test terminated at 10,000 min

Static Shear	750 g	View

Test Method: ASTM D3654

Test Condition: @ 49°C (120°F)

Notes: 1/2 in x 1 in sample size; Test terminated at 10,000 min

Static Shear	500 g	View

Test Method: ASTM D3654

Test Condition: @ 70°C (158°F)

Notes: 1/2 in x 1 in sample size; Test terminated at 10,000 min

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.

Available Sizes

Property	Values	Additional Information
Maximum Length	160 m	
Maximum Length	175 yd	
Maximum Available Width	1.18 mm	
Maximum Available Width	46.5 in	
Normal Slitting Tolerance	±0.8 mm	
Normal Slitting Tolerance	±1/32 in	
Available Sizes	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)	

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

Product retains its performance and properties for 24 months from date of manufacture when stored in original cartons at 70°F (21°C) and 50% relative humidity.

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.

Bottom Matter

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Trademarks

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 tosurfaces 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

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40072049/

Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=4658F

ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

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