

September, 2011

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.



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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	
Color	Clear	
Thickness: Nominal	0.8 mm	31 mil
Thickness Tolerance	± 10 %	
Adhesive Type	100	
Foam Type	Acrylic	
Foam Density	960 kg/m ³	60 lb/ft ³
Liner	Polyester Film	
Liner Thickness	0.08 mm	3 mil
Liner Color	Clear	

Typical Performance Characteristics

Property	Values		Method	Dwell/Cure Time	Substrate	Notes
90° Peel Adhesion	26.3 N/cm	240 oz/in	ASTM D3330	72 hr @ Room Temperature	Stainless Steel	Jaw Speed 12 in/min (305 mm/min)
Solvent Resistance	No apparent degradation when exposed to splash testing of most hydrocarbon solvents.					

Relative High Temperature Operating Ranges		Test Condition
100 °C	212 °F	Short Term (minutes, hours)
80 °C	175 °F	Long Term (days, weeks)

Property: Relative High Temperature Operating Ranges

Typical Performance Characteristics (continued)

Static Shear	Test Condition
1000 g	Room Temperature
750 g	@ 49°C (120°F)
500 g	@ 70°C (158°F)

Property: Static Shear
 Method: ASTM D3654
 notes: 1/2 in.² (3.23 cm²), will hold weight listed for 10,000 minutes

Available Sizes

Property	Values	
Maximum Length	160 m	175 yd
Maximum Available Width	1.18 mm	46.5 in
Normal Slitting Tolerance	±0.8 mm	±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.

Typical Environmental Performance

U.V. Resistance

Excellent resistance to direct exposure to sunlight or other sources of ultraviolet (U.V.) light.

Handling/Application Information

Application Ideas

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

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Handling/Application Information (continued)

Application Techniques

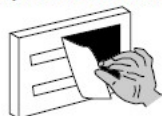
- Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improve bond strength.
- To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Typical surface cleaning solvents are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

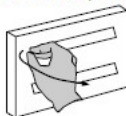
For rigid surfaces, lever or pry apart the substrates to break the bond.



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



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



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.

Trademarks

3M is a trademark of 3M Company.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/-/3M-Double-Coated-Removable-Foam-Tape-4658?N=5002385+3293242748&rt=rud
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.

Information

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