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Removable Foam Tape 4656F

Product Data Sheet

Updated : Sept 2002
Supersedes : January 1995

Product Description

4656F Removable Foam Tape is a general purpose medium tack pressure sensitive adhesive tape. This unique adhesive is designed for temporary bonding with clean and easy removability.

Its soft, conformable nature allows for almost immediate ultimate strength build-up and excellent adhesion at low temperatures

Physical Properties

Not for specification purposes

Adhesive Type	Acrylic	
Thickness (ASTM D-3652) Tape	0.6mm	
Release Liner	Filmic (Clear)	
Tape Colour	Translucent yellow	
Shelf Life	12 months from date of despatch by 3M when stored in the original carton at 20°C & 50 % Relative Humidity	

Performance Characteristics

The test data has been generated with limited samples and should not be used for specification purposes.

Substrates	Peel Adhesion - N/10mm	
	90° Peel at Room Temperature Jaw speed 300mm per minute	
Stainless Steel	20 mins	8.7
	24 hours	10.4
ABS (Rough)	20 mins	7.7
	24 hours	8.4
Polyethylene	20 mins	5.20
	24 hours	5.35
Acrylic	20 mins	8.02
	24 hours	8.49
Glass	20 mins	8.0
	24 hours	8.4

Performance Characteristics (Contd)

Not for specification purposes

Temperature Performance Max : Minutes / Hours Max : Days / Weeks Minimum Application Temperature	50°C 40°C -30°C 0°C to 25°C	
UV Resistance (10 days exposure QUVA)		
Samples pre-bonded to Glass, UV exposure through glass	Excellent (some discolouration of tape)	
Samples un-bonded, UV exposure through liner then bonded to glass prior to testing.	Good (some discolouration of tape)	
Tape roll exposure to UV, then bonded to glass prior to testing.	Excellent	
Humidity Resistance (10 days at 38°C/98% RH)	No drop in peel strength	
Plasticiser Resistance	Poor (not recommended)	
Repeated Repositionability Sample peeled and repositioned 10 times	Stainless Steel Retains 75% of peel performance	

Additional Product Information

Area of Tape Required 150 cm² (24 sq.ins) to hold 1Kg static load at room temperature

Foamex® E12.700 (Exhibition Grade)

Typical weights and tape required:

Thickness	Weight per M ² (Kg)	Tape Required (cm ²)	Length required using 25mm width tape (cm)
2mm	1.4	210	84
3mm	2.1	315	126
4mm	2.8	420	168
5mm	3.5	525	210
6mm	4.2	630	252
8mm	5.6	840	336
10mm	7.0	1050	420

Surfaces

Laboratory tests have shown 4656F Removable Foam Tape to have excellent attachment to a wide range of surfaces. Clean removability is also possible from most of these surfaces.

Low cohesive strength surfaces, such as painted wood chip paper, blown vinyl and plasterboard may delaminate on removal.

Acceptable surfaces:

- Foamex
- Glass/Mirrors
- Metal
- Acrylic
- Ceramic tiles
- Wood
- Plastic (including low surface energy plastics)
- Paper
- Brick
- Plaster/cement
- Forex/Correx
- Chipboard

Low cohesive strength surfaces

- Wood chip wallpaper
- Blown vinyl
- Plasterboard
- Fabric and cloth
- Emulsion painted wallpaper

Care should be taken with wood veneers and highly polished wood furniture. Since any reactions with the surface may leave an 'image'

Not recommended on plasticised PVC

Application Techniques

1. Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure develops better adhesive contact & thus improves bond strength.

2. To obtain optimum adhesion, the bonding surfaces must be clean dry and well unified. A typical surface cleaning solvent is isopropyl alcohol & water. Use proper safety precautions for handling solvents.

3. Ideal tape application temperature range is 0°C to 25°C

Removal Techniques

Use the removal tool to prise apart rigid substrates, then peel to remove completely.

For flexible surfaces peel back slowly to ensure clean removal.

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Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.



Tapes & Adhesives

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