

3M Super 77 Multipurpose Spray Adhesive

Technical Data

August, 2005

Product Description

3M™ Super 77 Multipurpose Spray Adhesive is a high tack, high coverage, fast drying, translucent adhesive for permanently attaching foils, carpeting, many lightweight foams, paper, plastics, cardboard, felt and cloth to painted or unpainted metals, wood, hardboard and other base materials.

Features

- Convenient
- Low mist
- Fast, easy application
- High coverage
- Aggressive tack
- Long bonding range
- Excellent spray control
- Uniform spray coat
- High initial “grab” with sufficient open time to allow for positioning of materials.

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.

Solids Content (by wt.):	~ 25%
Base:	Synthetic Elastomers
Color (wet and dry):	Translucent
Net Weight* (approx.):	16.75 oz. (475 gms.)
Spray Pattern:	Low Mist, Fine Particle Spray
Spray Width:	4 1/2" - 6"
Bonding Range (1 Surface) (2 Surface): (Extra Strong Bonds)	10 seconds - 15 minutes 10 seconds - 30 minutes Spray both surfaces - allow a minimum of 30 seconds drying time
Solvents:	Acetone, Heptane, Cyclohexane
Flash Point:	-42°F (-42°C)
Coverage* @ .5 gm/sq. ft.:	> 220 sq. ft.
% Volatile Organic Components (VOC):	51%
Hazardous Air Pollutants (HAPS):	None

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Typical Adhesive Performance Characteristics

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

Peel Adhesion: Peel bonds of cotton duck (canvas) to the listed substrate were tested at a peel angle of 180° at two inches per minute jaw separation rate @ 75°F (24°C).

Substrate	Value - PIW (lbs. / inch width)
Aluminum	3.9
CRS (Cold Rolled Steel)	7.5
Stainless Steel	6.8
ABS	7.1
Acrylic	8.6
FRP (Fiberglass Reinforced Plastic)	5.8
Nylon 6,6	4.8
Polycarbonate	8.4
Polyethylene	2.6
Polypropylene	5.8
PVC	8.1

Peel Adhesion at Temperature: T-Peel bonds of cotton duck (canvas) to itself were tested at two inches per minute jaw separate rate.

Test Temperature	Value - PIW (lbs. / inch width)
-30°F (-34°C)	3.4
75°F (24°C)	11
100°F (38°C)	8.3
120°F (49°C)	1.6

Overlap Shear Strength: Overlap shear strength on birch plywood to itself tested and on maple to itself at two inches per minute jaw separate rate @ 75°F (24°C).

Substrate	Value - PSI (lbs. / square inch)
Birch	145
Maple	147

Overlap Shear Strength at Temperature: Overlap shear strength on birch plywood to itself tested at two inches per minute jaw separate rate.

Test Temperature	Value - PSI (lbs. / square inch)
-30°F (-34°C)	876
75°F (24°C)	145
100°F (38°C)	32
120°F (49°C)	18

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Application/Handling Information

Directions for Use

- 1. Surface Preparation:** Surfaces must be clean, dry and free from dirt, dust, oil, loose paint, wax or grease, etc.
- 2. Application Temperature:** For best results the temperature of the adhesive and the surfaces being bonded should be at least 65°F (18°C).
- 3. Application:**
 - Shake can well.
 - Turn spray tip so arrow points to dot on rim. (**Note:** Always point spray tip away from yourself and others.)
 - Hold can 6-8 inches from surface to be sprayed.
 - Make bond while adhesive is aggressively tacky.
 - After use, invert can, depress spray tip until spray is free of adhesive.
 - Clean spray tip with turpentine.*
- 4. Bonding Range:**
 - 1 surface - 10 seconds to 15 minutes
 - 2 surface - 10 seconds to 30 minutes
 - Extra Strong Bonds – Spray both surfaces and allow a minimum of 30 seconds drying time.
- 5. Cleanup:** Excess adhesive may be removed with 3M™ Adhesive Remover Citrus Base.*

*When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer's precautions and directions for use.

Storage

Store product at 60-80°F (16-27°C) for maximum storage life. Higher temperatures can reduce normal storage life. Lower temperatures can cause increased viscosity of a temporary nature. Rotate stock on a "first in-first out" basis.

Shelf Life

When stored at the recommended conditions in the original, unopened container this product has a shelf life of 15 months from date of shipment.

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Precautionary Information

Refer to Product Label and Material Safety Data Sheet for Health and Safety Information before using this product.

Product Use

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

Warranty and Limited Remedy

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ISO 9001:2000

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



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