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English
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Technical Data Sheet

3M™ Neoprene High Performance Contact Adhesive 1357

Product Description

3M™ Neoprene High Performance Contact Adhesive 1357 can be used to bond most rubber, cloth, metal, wood, foamed glass, paper honeycomb, decorative plastic laminates and many other substrates.

Product Features

- Long bonding range.
- Excellent initial strength.
- High heat resistance.

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
Solids Content by Weight	23 to 27 %	
Color	Gray/Green, Light Yellow	
Flash Point	-26 °C	View
Notes: TCC		
Flash Point	-14 °F	View
Notes: TCC		
Solvent Resistance	Petroleum distillate, acetone, MEK, toluene, n-hexane	
Coverage	308 sq ft/gal	View
Notes: @ 2.5 g/ft² dry wt.		
Viscosity	200 to 450 cP	View

Notes: Brookfield Viscometer RVF #2 spindle @ 20 rpm

Typical Uncured Physical Properties

Property	Values	Additional Information
Base	Polychloroprene	
Net Weight	6.6 to 7 lb/gal	

Typical Performance Characteristics

Property	Values	Additional Information
180° Peel Adhesion	256 oz/in	View
Dwell/Cure Time: 24.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Canvas to Steel		
180° Peel Adhesion	496 oz/in	View
Dwell/Cure Time: 72.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Canvas to Steel		
180° Peel Adhesion	672 oz/in	View
Dwell/Cure Time: 120.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Canvas to Steel		
180° Peel Adhesion	416 oz/in	View
Dwell/Cure Time: 168.0 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Canvas to Steel		
180° Peel Adhesion	384 oz/in	View
Dwell/Cure Time: 2.0 Dwell Time Units: week Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Canvas to Steel		

180° Peel Adhesion	368 oz/in	View

Dwell/Cure Time: 3.0
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: Canvas to Steel

180° Peel Adhesion	208 oz/in	View

Dwell/Cure Time: 3.0
Dwell Time Units: week
Temp C: -34C
Temp F: -29F
Environmental Condition: 50%RH
Substrate: Canvas to Steel

180° Peel Adhesion	296 oz/in	View

Dwell/Cure Time: 3.0
Dwell Time Units: week
Temp C: 66C
Temp F: 150F
Environmental Condition: 50%RH
Substrate: Canvas to Steel

180° Peel Adhesion	192 oz/in	View

Dwell/Cure Time: 3.0
Dwell Time Units: week
Temp C: 82C
Temp F: 180F
Environmental Condition: 50%RH
Substrate: Canvas to Steel

Overlap Shear Strength	452 lb/in²	View

Dwell/Cure Time: 2.0
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Substrate: Birch to Birch

Notes: 1/8in thick substrates

Overlap Shear Strength	536 lb/in²	View

Dwell/Cure Time: 3.0
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Substrate: Birch to Birch

Notes: 1/8in thick substrates

Overlap Shear Strength	964 lb/in²	View

Dwell/Cure Time: 3.0
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Substrate: Birch to Birch

Notes: 1/8in thick substrates

Overlap Shear Strength	199 lb/in²	View

Dwell/Cure Time: 3.0
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Substrate: Birch to Birch

Notes: 1/8in thick substrates

Overlap Shear Strength	158 lb/in²	View

Dwell/Cure Time: 3.0
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Substrate: Birch to Birch

Notes: 1/8in thick substrates

Storage and Shelf Life

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.
When stored at the recommended conditions in the original, unopened container, 3M™ Neoprene High Performance Contact Adhesive 1357 has a shelf life of 30 months from date of manufacture.

Industry Specifications

NFPA 130 test report for details (ASTM E162, ASTM E662, SMP 800-C, BSS 7239)
NFPA 130 test report for details (ASTM E1354)

Automotive Disclaimer

Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, including, but not limited to, automotive electric powertrain battery or high voltage applications. This product does not fully adhere to typical automotive design or quality system requirements, such as IATF 16949 or VDA 6.3. This product may not be manufactured in an IATF certified facility and may not meet a Ppk of 1.33 for all properties. The product may not undergo an automotive production part approval process (PPAP). Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer’s automotive application and for conducting incoming inspections before use of the product. Failure to do so may result in injury, death, and/or harm to property. No written or verbal statement, report, data or recommendation by 3M related to automotive use of the product shall have any force or effect unless in an agreement signed by the Technical Director of 3M’s Automotive Division. Customer assumes all responsibility and risk if customer chooses to use this product in an automotive electric powertrain battery or high voltage application, and 3M will not be liable for any loss or damage arising from or related to the 3M product or customer’s use of the product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity or recall costs), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability. In no event shall 3M be liable for any damages in excess of the purchase price paid for the product.
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Bottom Matter

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Trademarks

Handling/Application Information

Application Techniques

Spray, brush, roll or flow

Application Equipment

Appropriate application equipment can enhance adhesive performance. We suggest the following application equipment for the user's evaluation in light of the user's particular purpose and method of application.

1. Pumping: A 2:1 divorced design pump is suggested. All material hoses should be nylon or PVA lined. Packings and glands in contact with the adhesive should be PTFE.

2. Spray:

These adhesives are not recommended for Airless Spraying.

*5 H.P. Compressor for continuous use.

**To Measure Fluid Flow: Pressurize fluid source only; pull trigger, flow material into measuring device for 60 seconds, increase or decrease fluid source pressure to obtain desired fluid flow.

3. Brush/Roller: Typical brushes/rollers designed for oil-based paint may be used.

Directions for Use

When bonding wood veneers, success is dependent on many variables such as environmental conditions, bonding process, type of base material, type of veneer, adhesive type and top coat finishing systems to name a few. It is the user's responsibility to thoroughly test any adhesive for its suitability in bonding wood veneers. It is also recommended to follow the veneer manufacturers recommendation and industry guidelines.

Directions For Use:

1. Surface Preparation: Remove all dust, dirt, oil, grease, wax, loose paint, etc.

Wiping with solvent such as Methyl Ethyl Ketone (MEK) will aid in preparing the surface for bonding.*

2. Application Temperature: For best results the temperature of the adhesive and surfaces to be bonded should be at least 65°F (18°C). If stored below 30°F (-1°C), warm-up to room temperature in a warm room only (do not exceed 120°F (49°C) followed by thorough agitation).

3. Application: Stir or agitate well before using for optimum results. Apply 2.5 gms to 3.5 gms/ft.2 dry weight to each surface. Unusually porous surfaces will require more adhesive.

4. Drying Time: The adhesive dries in about 10 minutes. High humidity will slow drying-high temperatures speed the drying. This adhesive has a bonding range of approximately 30 minutes when applied to both bond surfaces under conditions of 70°F (21°C) and 35% R.H. If the adhesive becomes too dry, apply another thin coat of adhesive to one surface, allow to become slightly tacky, and bond.

Relative humidity above 50% can cause blushing (condensation of moisture on surface) and a false bond. To avoid this, we recommend a force drying temperature of 180-220°F (82-104°C). Force drying will also help remove the solvent more rapidly.

5. Assembly: Spacers, such as dowels or strips of laminate, may be used to help prevent premature adhesive/adhesive contact and bonding prior to positioning. Slide out of the spacers and apply uniform pressure, working toward the edges. A 3 in roller used with maximum body pressure should be used to help ensure adequate contact and bonding, especially on edges. The use of a pinch roll is preferred for optimum performance. Bonded assemblies may be machined, trimmed, etc. immediately after bonding.

6. Cleanup: Adhesive residue of 3M™ Neoprene High Performance Contact Adhesive 1357 and 1357-L may be removed from exposed surfaces with solvents such as Methyl Ethyl Ketone (MEK), or 3M™ Citrus Base Industrial Cleaner.* For flushing fluid lines use MEK.

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

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40069400/
Safety Data Sheet SDS	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=1357

ISO Statement

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

Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.

Information

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