3M™ Neoprene Contact Adhesive 5

Last Revision Date: February, 2015

Product Description

3M™ Neoprene Contact Adhesive 5 is a sprayable contact adhesive which may be used to bond many high-pressure plastic laminates to wood, particle- board, metal and other surfaces.

Product Features

- Sprayable.
- Fast drying.
- 60 minute bonding range.
- Excellent resistance to plastic flow (creep).

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	18 to 21 %	
Color	Green, Light Yellow	
*Note	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.	
Flash Point	-25 °C (-14 °F)	View
Notes: TCC		
Flash Point	-14 °F	View
Notes: TCC		

Solvent Resistance	Petroleum distillate, acetone, toluene and n-hexane	

Coverage	233 sq ft/gal	View

Notes: @ 2.5 g/ft² dry wt.

Viscosity	175 to 350 cP	View

Test Condition: 80°F(27°C)

Notes: Brookfield Viscometer RVF #2 spindle @ 20 rpm

Typical Uncured Physical Properties

Property	Values	Additional Information
Base	Polychloroprene	
Net Weight	6.4 to 6.8 lb/gal	

Typical Performance Characteristics

Property	Values	Additional Information
Overlap Shear Strength	7680 oz/in	View

Test Method: ASTM D1002

Dwell/Cure Time: 2
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Test Condition: Room Temperature
Substrate: Birch to Birch

Overlap Shear Strength	7712 oz/in	View

Test Method: ASTM D1002

Dwell/Cure Time: 3
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Test Condition: Room Temperature
Substrate: Birch to Birch

Overlap Shear Strength	16960 oz/in	View

Test Method: ASTM D1002

Dwell/Cure Time: 3
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Test Condition: -30°F(-34°C)
Substrate: Birch to Birch

Overlap Shear Strength	1040 oz/in	View

Test Method: ASTM D1002

Dwell/Cure Time: 3
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Test Condition: 180°F(82°C)
Substrate: Birch to Birch

Overlap Shear Strength	608 oz/in	View

Test Method: ASTM D1002

Dwell/Cure Time: 3
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Test Condition: 225°F(107°C)
Substrate: Birch to Birch

180° Peel Adhesion	160 oz/in	View

Dwell/Cure Time: 24
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: Canvas to Steel

180° Peel Adhesion	192 oz/in	View

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

180° Peel Adhesion	224 oz/in	View

Dwell/Cure Time: 120
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: Canvas to Steel

180° Peel Adhesion	288 oz/in	View

Dwell/Cure Time: 168
Dwell Time Units: hr
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: Canvas to Steel

180° Peel Adhesion	288 oz/in	View

Dwell/Cure Time: 2
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: Canvas to Steel

180° Peel Adhesion	304 oz/in	View

Dwell/Cure Time: 3
Dwell Time Units: week
Temp C: 23C
Temp F: 72F
Environmental Condition: 50%RH
Substrate: Canvas to Steel

180° Peel Adhesion	264 oz/in	View

Dwell/Cure Time: 3
Dwell Time Units: week
Temp C: -34C
Temp F: -29F
Environmental Condition: 50%RH
Substrate: Canvas to Steel

180° Peel Adhesion	112 oz/in	View

Dwell/Cure Time: 3
Dwell Time Units: week
Temp C: 82C
Temp F: 180F
Environmental Condition: 50%RH
Substrate: Canvas to Steel

Storage and Shelf Life

Best storage temperature is 60-80°F (16-27°C). Higher temperatures reduce normal storage life. Lower temperatures cause increased viscosity of a temporary nature.

Rotate stock on a “first in, first out” basis.

When stored at the recommended temperature in the original, unopened container, this product has a shelf life of 30 months from date of manufacture.

Trademarks

3M is a trademark of 3M Company.

Handling/Application Information

Application Equipment

Note: Appropriate application equipment enhances 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. Packings and glands, in contact with the adhesive, should be PTFE.

2. Pressure Pot: Any stainless steel or galvanized pressure pot with A.S.M.E. rating is acceptable to use with 3M™ Neoprene Contact Adhesive 5.

3. Spray Equipment:

[Image 73]

Note: These adhesives are not recommended for Airless Spraying.

*3 H.P. Compressor for intermittent use. 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.

4. Hoses: All material hoses should be nylon or PVA lined.

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

Directions for Use

Working Temperature

1. The temperature of the adhesive and surfaces to be bonded should be at 65°F (18°C) or above.

2. Warm the can of adhesive by placing in a warm room, not in stove, oven or other possible ignition source.

3. If the room must be warmed, turn off the heater before opening container.

4. Leave heater off until all vapors are gone.

Application

1. Stir thoroughly before using.

2. Apply adhesive generously in a uniform film on both surfaces with either a fiber or animal hair brush, or pour and spread with paint roller (solvent resistant texturing type).

3. Porous surfaces may require 2 coats of adhesive.

4. A glossy film when completely dry indicates adequate adhesive.

5. Dull spots after drying indicate not enough adhesive; these spots must have another coat.

Assembly

1. Allow to dry until adhesive is no longer tacky (5-10 minutes).

2. Position surfaces carefully before assembly.

3. No adjustment is possible after contact.

4. Spacers such as dowels or strips of laminate, may be used to prevent premature adhesive/adhesive contact and bonding.

5. Slide out the spacers and apply uniform pressure, working toward the edges.

6. A 3 in roller used with maximum body pressure should be used to help ensure adequate contact and bonding, especially on the edges.

7. Bonded assemblies can be machined, trimmed or finished immediately after bonding.

Drying Time

1. Drying time depends on temperature, humidity, air movement and porosity of materials bonded.

Cleanup

1. Excess adhesive may be removed with a solvent such as methyl ethyl ketone.*

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

Surface Preparation

Note: Read and follow precautions before using this product.

Surface Preparation

1. For best results all surfaces to be bonded should be dry and free from dirt, dust, oil, loose paint, wax, grease, etc.

2. Oil, grease and other contaminants can be removed by wiping with a solvent such as methyl ethyl ketone.*

3. If used for decorative laminate, laminate should have reached moisture equilibrium for the shop conditions.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Neoprene-Contact-Adhesive-5X/?N=5002385+3293241724&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=5

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

Technical Information: The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

Product Selection and Use: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability: Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

Disclaimer: 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit www.3M.com.