March, 2015

3M™ Neoprene High Performance Rubber & Gasket Adhesive 1300L

Product Description

3M™ Neoprene High Performance Rubber & Gasket Adhesives 1300 and 1300L are the most versatile of our rubber and gasket adhesives. They may be used to bond metal, wood, most plastics, and neoprene, reclaim, SBR, and butyl rubber. They have high immediate strength and excellent heat resistance. 3M Scotch- Weld Adhesive 1300L is a lower solids, lower viscosity version of 3M Adhesive 1300.

Product Features

- 3M™ Neoprene High Performance Rubber & Gasket Adhesive 1300L meets specification requirements of MMM-A-121.
- Temperature performance range is -30°F (-34°C) to 300°F (149°C).
- Bonding Range: 3M Adhesive 1300 up to 12 minutes; 3M Adhesive 1300L up to 8 minutes.
- Bonds neoprene, SBR, butyl and other types of rubber to various substrates.
- 3M Adhesive 1300L is a lower solids viscosity version of 3M Adhesive 1300, for easier brushing and sprayability.

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		Notes	Test Condition
Color	Yellow			
Solids Content by Weight	26 to 33 %			
Flash Point	-14 °F	-26 °C	Closed Cup	
Solvent Resistance	Petroleum distillate, methyl ethyl ketone and toluene (These products contain non-photochemically reactive solvent)			
Viscosity	250 to 1000 cP		Brookfield Viscometer RVF #2 spindle @ 20 rpm	80°F(27°C)

Typical Uncured Physical Properties

Property	Values
Base	Polychloroprene
Net Weight	6.9 to 7.3 lb/gal

Typical Performance Characteristics

180° Peel Adhesion	Dwell/Cure Time	Dwell Time Units	Temp C	Temp F
288 oz/in	24	hr	22C	72F
768 oz/in	72	hr	22C	72F
816 oz/in	120	hr	22C	72F
832 oz/in	168	hr	22C	72F

Table continued on next page

Typical Performance Characteristics (continued)

180° Peel Adhesion	Dwell/Cure Time	Dwell Time Units	Temp C	Temp F
480 (This value DOES NOT reflect a loss in strength – but do represent an increase in modulus. Because of the adherends and procedure, bond failure is from the canvas. The actual strength of these adhesives is increasing.) oz/in	2	wk	22C	72F
320 (This value DOES NOT reflect a loss in strength – but do represent an increase in modulus. Because of the adherends and procedure, bond failure is from the canvas. The actual strength of these adhesives is increasing.) oz/in	3	wk	22C	72F
784 oz/in	3	wk	-34C	-29F
520 oz/in	3	wk	66C	150F
416 oz/in	3	wk	82C	180F

Property: 180° Peel Adhesion
Environmental Condition: 52%RH
Substrate: Canvas to Steel

Overlap Shear Strength	Test Condition
343 lb/in²	-30°F(-34°C)
549 lb/in²	Room Temperature
195 lb/in²	150°F(66°C)
136 lb/in²	180°F(82°C)
85 lb/in²	200°F(93°C)
85 lb/in²	225°F(107°C)

Property: Overlap Shear Strength
Dwell/Cure Time: 2 wk @ Room Temperature
Substrate: Birch to Birch
Substrate Notes: 1/8in

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:
5 Gallon Pail Dispensing System:
1. 3M™ Neoprene High Performance Rubber & Gasket Adhesive 1300 – 4:1 double acting ball type check pump, 4 cu. in/cycle 3" air motor. Pail cover required to reduce solvent loss.
2. 3M™ Neoprene High Performance Rubber & Gasket Adhesive 1300L
– Use a pressure pot for material supply.
55 Gallon Pail Dispensing System:
1. 3M Adhesive 1300 – 4:1 double acting ball type check pump, 4 cu. in/cycle 3" air motor, bung style pump.
2. 3M Adhesive 1300L – 2:1 divorced design pump.
Accessories:
1. Hose – Samuel Moore Synflex or equivalent, 500 psi working pressure minimum.
Chemical Resistance Requirements:
1. Packings, glands and hoses in contact with this adhesive must be resistant to ketones and aromatic solvents. Nylon and PTFE lined or coated parts are suggested.
2. Spraying:
3M™ Neoprene High Performance Rubber & Gasket Adhesive 1300L

Spray Gun	Air Cap	Fluid Tip	Atomizing Air Pressure	Approximate Air Requirement*	Fluid Flow**
Air Spray – Hand Held					
Binks 2001, 95	63PH	63BSS (.046")	70 psi	21 CFM	6.5 fl. oz./min.
DeVilbiss JGA, MSA	704	FX (.042")	70 psi	17 CFM	5 fl. oz./min.
Air Spray – Automatic					
Binks 21, 95A, 610	63PH	63BSS (.046")	70 psi	21 CFM	6.5 fl. oz./min.
DeVilbiss AGX	704	FX (.042")	70 psi	17 CFM	5 fl. oz./min.

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.
All material hoses should be nylon or PVA lined. Packings and glands in contact with these adhesives should be lined or coated with a non-stick surface.
3. Brushes
Use brushes designed for oil based paint.

Handling/Application Information (continued)

Directions for Use

1. Surface Preparation
Remove all dust, dirt, oil, grease, wax, loose paint, etc. Wiping with a 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), allow adhesive to warm to room temperature by placing in a warm room only (do not exceed 120°F [49°C]) followed by thorough agitation.
3. Application
Stir well before using. Brush, flow or spray a thin, uniform coating of adhesive to each surface. A coating of 2.5 gms to 3.5 gms/ft.2 dry weight per surface is recommended. Porous surfaces may require more than one coat. A uniform, glossy film indicates sufficient adhesive.
4. Drying Time
Allow adhesive to dry until no longer wet (maximum dry time about 4 minutes).
5. Bonding Range
Once dry, these adhesives have a short bonding range (up to 8 to 12 minutes).
6. Assembly
Position surfaces carefully before assembly. Bonding is immediate upon contact. Apply sufficient pressure to ensure good contact between coated surfaces. Bonded parts may be handled immediately.
7. Reactivation
Greater immediate strength may be obtained by solvent reactivation. To solvent reactivate, coat both surfaces with adhesive and allow to dry tack free. Lightly wipe one surface with methyl ethyl ketone (MEK)* and complete bonding within 30 seconds.
8. Cleanup
Use a solvent such as 3M™ Solvent No. 2* or methyl ethyl ketone (MEK)* to clean brushes immediately after use. Excess adhesive may be removed from other surfaces with 3M™ Citrus Base Cleaner* or equivalent.
*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow manufacturer's precautions and directions for use.

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

Industry Specifications

MMM-A-121

Trademarks

References

Safety Data Sheet (SDS)

https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=1300L

Family Group

	1300	1300L
Color	Yellow	Yellow
Solids Content by Weight (%)	34 to 39	26 to 33

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.

3M United States
3M Center
St. Paul, MN 55144-1000
800-362-3550
www.3M.com