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3M™ Nitrile Rubber & Plastic Adhesive 826

Product Features

- A light colored, fast drying adhesive.
- Excellent resistance to aromatic fuels, water and oil.
- Used to bond many types of plastic films including ABS, cellulose acetate, and PVC.



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 | Light Amber | | | |
| Solids Content by Weight | 21 to 25 % | | | |
| Flash Point | 2 °C | 35 °F | Setaflash® closed cup tester | |
| Solvent | Ethyl Acetate, Ethyl Alcohol | | | |
| Viscosity | 750 to 1250 cP | | Brookfield Viscometer RVF #2 spindle @ 20 rpm | 80°F(27°C) |

Typical Uncured Physical Properties

| Property | Values |
|------------|-----------------|
| Base | Nitrile |
| Net Weight | 7.5 to 8 lb/gal |

Typical Performance Characteristics

| 180° Peel Adhesion | Dwell/Cure Time | Test Condition |
|--------------------|-------------------------------|------------------|
| 160 oz/in | 1 day @ Room Temperature | Room Temperature |
| 272 oz/in | 3 days @ Room Temperature | Room Temperature |
| 296 oz/in | 5 days @ Room Temperature | Room Temperature |
| 336 oz/in | 7 days @ Room Temperature | Room Temperature |
| 368 oz/in | 2 wk @ Room Temperature | Room Temperature |
| 432 oz/in | 3 wk @ Room Temperature | Room Temperature |
| 280 oz/in | After 3 wk @ Room Temperature | -30°F(-34°C) |
| 80 oz/in | After 3 wk @ Room Temperature | 150°F(66°C) |
| 64 oz/in | After 3 wk @ Room Temperature | 180°F(82°C) |

Property: 180° Peel Adhesion
Substrate: Canvas to Steel

Typical Performance Characteristics (continued)

| Overlap Shear Strength | Test Condition |
|-------------------------|------------------|
| 1395 lb/in ² | -67°F(-55°C) |
| 1811 lb/in ² | -30°F(-34°C) |
| 198 lb/in ² | Room Temperature |
| 88 lb/in ² | 150°F(66°C) |
| 59 lb/in ² | 180°F(82°C) |
| 55 lb/in ² | 200°F(93°C) |
| 25 lb/in ² | 250°F(121°C) |

Property: Overlap Shear Strength
Dwell/Cure Time: heat cured for 15 min. @ 325°F(163°C), 150 psi
Substrate: Aluminum to Aluminum

| T-Peel Adhesion | Dwell/Cure Time |
|-----------------|--|
| 256 oz/in | Aged 2 days @ 120°F(49°C) plus 24 hr./120°F(49°C) VMP |
| 144 oz/in | Aged 2 days @ 120°F(49°C) plus 24 hr./120°F(49°C) Jet Fuel |
| 336 oz/in | Aged 2 days @ 120°F(49°C) plus 24 hr./160°F(71°C) Oil |
| 208 oz/in | Aged 2 days @ 120°F(49°C) plus 1 wk./Freon #11 |
| 192 oz/in | Aged 2 days @ 120°F(49°C) plus 2 wk./Freon #11 |
| 240 oz/in | Aged 2 days @ 120°F(49°C) plus 1 wk./Freon #12 |
| 240 oz/in | Aged 2 days @ 120°F(49°C) plus 2 wk./Freon #12 |

Property: T-Peel Adhesion
Method: ASTM D1876
Substrate: Canvas to Canvas

Handling/Application Information**Application Equipment**

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 ratio, divorced design pump is suggested. All material hoses should be nylon lined. Packings and glands in contact with the adhesive should be PTFE.
2. Spray:

| Spray Gun | Air Cap | Fluid Tip | Air Pressure | Approximate Air Requirement ¹ | Fluid Flow ² |
|--------------------------|---------|-----------|--------------|--|-------------------------|
| DeVilbiss, JGA | 704 | E | 60 psi | 14½ CFM | 4 fl. oz./min. |
| Binks No. 62, 95 or 2001 | 66PE | 66 | 60 psi | 16½ CFM | 4 fl. oz./min. |

Note: This adhesive is not recommended for airless spraying.

12-3 H.P. Compressor for intermittent use. 4 H.P. Compressor for continuous use.

2To 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: Typical brushes designed for oil based paint may be used.

Handling/Application Information (continued)

Directions for Use

1. Surface Preparation: Surfaces must be clean, dry and dust free. Wiping thoroughly with methyl ethyl ketone (MEK)* will aid in removing oil and dirt.*
 2. Application Temperature: For best results, the temperature of the adhesive and surfaces should be at least 65°F (18°C).
 3. Application: Stir well before using.
Porous Surface(s): Brush, flow or spray a thin, even coat of adhesive to one or both surfaces. Coating both surfaces is preferred since it gives greater strength and permits longer open time before bonding. Very absorbent materials may require more than one coat. Bond while adhesive is still wet or aggressively tacky. Join surfaces with firm pressure.
Non-Porous Surface(s): Brush, flow or spray a thin, even coat of adhesive to both surfaces. Allow adhesive to dry until tacky. Join surfaces with firm pressure.
 4. Drying Time: Drying time depends on temperature, humidity, air movement, and porosity of the materials bonded. Typically, drying times of 5 to 10 minutes can be expected.
 5. Cleanup: Excess adhesive may be removed with methyl ethyl ketone (MEK)* or acetone,* preferably while still wet.
- *Note: When using solvents, extinguish all ignition sources and follow the manufacturer's precautions and directions for use.

Storage and Shelf Life

Store product at 60-80°F (15-26°C) for maximum storage life. 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 in the original unopened container, this product has a shelf life of 24 months from date of manufacture.

Trademarks

3M is a trademark of 3M Company.

References

1. 3m.com Product Page
Url: http://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Nitrile-Plastic-Adhesive-826?N=5002385+3293193749&rt=rud
2. Safety Data Sheet
Url: https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=826

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.

Technical Information

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