

[METRIC]
A-A-1936A
August 12, 1996
SUPERSEDING
A-A-1936
April 12, 1996

COMMERCIAL ITEM DESCRIPTION

ADHESIVE, CONTACT, NEOPRENE RUBBER

The General Services Administration has authorized the use of this commercial item description as a replacement for Federal Specification MMM-A-130B, for all Federal Agencies

1 SCOPE This commercial item description covers three types of neoprene adhesive suitable for contact bonding of many materials such as leather, wood, fabrics, unglazed ceramics, wall boards and carpet to each other. It may be used to bond plastic decorative laminates to wood and metal surfaces. These adhesives are intended to be applied by brush or spray.

2 CLASSIFICATION The adhesive shall be of the following types and grades:

Type I - Solvent type, High VOC

Type II - Water dispersion type

Type III - Solvent type, High solids, lower VOC

Grade A - apply by brush

Grade B - apply by spray

3 SALIENT CHARACTERISTICS

3.1 The product shall meet the requirements in Table I.

TABLE I

| Characteristic | Type I | Type II | Type III | Test ¹ |
|--|------------------------------|------------------------------|------------------------------|--|
| Volatile Organic Content g/L, maximum | — | 250 | 540 | BAAQMD Manual of Proc. ⁴ Method 22 (Ty I and III) Method 21 (Ty II) |
| Non-volatile content, %(wt), minimum | 15 | 46 | 23 | ASTM D 1490 (Ty I) ASTM D 1489 (Ty II) |
| Density, g/ml (lb/gal) | 78- 87 (6.5-7.3) | 1.03-1.12 (8.5-9.3) | 78- 87 (6.5-7.3) | ASTM D 1875 |
| Ash content, %(wt) | 3-20 | 3-20 | 3-20 | ASTM D 297 |
| Viscosity, centipoise Grade A Grade B, maximum | 400-1500 250 | 400-3000 250 | 400-1500 250 | ASTM D 1084 Method B, |
| Shear strength ² kPa (psi), minimum Before aging After aging 1 cycle | 1030 (150) 1380 (200) | 1030 (150) 1380 (200) | 1030 (150) 1380 (200) | ASTM D 1002 ³ ASTM D 1183 Proc A |

¹ Manufacturer may use tests shown in this table or an equivalent test to verify compliance to these requirements. The tests listed will be used in case of dispute.

² Use a dry coating weight of 20 to 30 grams/sq meter (2 to 3 grams per sq ft) in accordance with ASTM D 898.

³ Bonding 6 mm Gr A fir plywood to 1.5 mm plastic laminate.

⁴ BAAQMD Manual of Procedures, Volume III, Method 21 or 22 is available from: Bay Area Quality Management District, ATTN: Public Information, 939 Ellis Street, San Francisco, CA 94109.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data which may improve this document should be sent to: General Services Administration, Engineering and Community Management Division (10FTE), 400 15th St. SW, Auburn, WA 98001.

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3.2 Prohibited material The product shall not contain (other than trace impurity amounts not to exceed .06% liquid wt, as tested in accordance with the appropriate ASTM method) any of the following hydrolyzable chlorine derivatives, ethylene based glycol ethers and their acetates, any carcinogen, as defined in 29 CFR 1910.1200, any of the chemicals on the EPA 33/50 program in the following list [benzene, cadmium & compounds, carbon tetrachloride, chloroform, chromium & compounds, cyanides, lead & compounds, mercury & compounds, methyl isobutyl ketone, methylene chloride, nickel & compounds, tetrachloroethylene, trichloroethane, trichloroethylene, and xylenes] nor any ozone depleting compound [as listed in the Federal Register notice of July 30, 1992 (57 Fed Reg. 33753) which include chlorofluorocarbons, halons, carbon tetrachloride, methyl chloroform, and hydrochlorofluorocarbons]

3.3 Edge lift Bond a 30 cm x 30 cm piece of 1.5 mm thickness high pressure decorative plastic laminate to a 30 cm x 30 cm x 1.2 cm piece of fir plywood following adhesive manufacturer instructions (see Table I footnote 2). Age 24 hours 23°C and 50% relative humidity. Trim 2.5 cm from each edge of the assembly leaving a 25 cm x 25 cm test specimen. Heat the specimen in an air circulating oven for 2 hours at 60°C. Cool to standard conditions. The distance that the plastic laminate has separated from the plywood shall not exceed 1.5 mm.

3.4 Open time Apply adhesive to a piece of 1.2 cm thickness fir plywood and a matching piece of 1.5 mm thickness high pressure decorative plastic laminate according to manufacturer's directions (see Table I footnote 2). Dry for one hour, then bond the plastic laminate over the plywood so that one inch of laminate extends over the plywood on two sides. Roll with a hand roller using body pressure to establish the bond. The laminate shall not peel from the plywood.

3.5 Shelf storage life A container of the adhesive, after storage for 12 months from the date of manufacture at 23°C and a relative humidity of 50%, shall have no gelling, stringing or other nonuniformity, and it shall meet all requirements in Table I.

4. QUALITY ASSURANCE PROVISIONS

4.1.3.1 Commercial Quality The products provided shall conform to the producer's own drawings, specifications, standards, and quality assurance practices and be the same product offered for sale in the commercial market. The government reserves the right to require proof of such conformance prior to first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

5. PACKAGING The packaging and packing shall be as specified in the contract or order.

6. NOTES

6.1 Intended use This adhesive is intended for high strength contact bonding of a wide variety of materials including metal, wood, plastics and fabrics to themselves and each other. The adhesive may be used to install cove base, corners and roll edge counter top materials. Type I and II correspond to Types I and II of MMM-A-130. Type III is added for users in VOC regulated areas.

6.2 Referenced documents

Federal Regulations

29 CFR Part 1910.1200

The code of Federal Regulations (CFR) is for sale mail order by the Superintendent of Documents, ATTN: New Order, PO Box 371954, Pittsburgh, PA 15250-7954.

ASTM Methods

ASTM D 297 - Chemical Analysis of Rubber Products

ASTM D 898 - Applied Weight Per Unit Area of Dried Adhesive Solids

ASTM D 1002 - Strength Properties of Adhesive in Shear by Tension Loading (Metal to Metal)

ASTM D 1084 - Viscosity of Adhesives

ASTM D 1183 - Resistance of Adhesives to Cyclic Laboratory Aging Conditions

ASTM D 1489 - Nonvolatile content of Aqueous Adhesives

ASTM D 1490 - Nonvolatile Content of Urea-Formaldehyde Resin Solutions

ASTM D 1875 - Density of Adhesives in Fluid Form

ASTM standards are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959. The issue of the ASTM test methods in effect on the date of the solicitation shall be used to determine compliance with these requirements.

MILITARY INTERESTS

Custodians

Air Force - 99

Review Activity

Army - MI

Air Force - 84

Navy YD-1

CIVIL AGENCY INTERESTS

Coordinating Activities

COM - NBS

GSA - PCD

Preparing Activity

GSA-FSS