

3M

Weatherban™

Acrylic Sealant

606-NF

Technical Data

September, 2010

Product Description

3M™ Weatherban™ Acrylic Sealant 606-NF is an excellent, synthetic, multi-purpose, water-dispersed sealant. A multi-purpose product ideal for many interior and exterior sealing applications. Can be applied with most conventional caulking guns or pressurized flow equipment. Seals many metal, wood, painted or primed surfaces, and certain abraded plastics.

Product Features

Non-Flammable When Wet. A water-dispersed product.

Easy Handling. Spreads easily like whipped butter. Can be readily “struck” with a wet spatula, easily smoothed to a feather edge. Will not sag out of vertical seams or gaps.

Non-Stringing. Beads cut off cleanly.

Fast Tack-Free Time. Typically skins over in 20-40 minutes. Helps prevent dirt pick up. Allows rapid paint over. No staining, no bleed through even with white enamels or lacquers.

Permits Weld-Through. Can be used as a “weld-through” sealer using conventional spot welding equipment.

Low Shrinkage. High solids content.

Tough, Yet Flexible. Sets firm, stays flexible to provide a rubber-like, water resistant seal.

Long Lasting. Excellent aging qualities help prevent cracking, chipping or peeling.

Versatile. Good freeze/thaw stability in the container.

Typical Physical Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Base:	Synthetic Elastomer (acrylic)
Color:	White
Net Weight:	(approx.) 12.3 to 13.6 lbs./gal.
Consistency:	Pumpable Paste
Solids Content:	(approx.) 79 to 84% (by wt.)
Solvent:	Water
Flash Point:	None
Caulk Rate:	(approx.) 2000 gms/min. Extrusion Test – 1/4 in. diam. orifice @ 25 psi)

Weatherban™

Acrylic Sealant

606-NF

Dispensing Equipment Suggestions

Note: Appropriate dispensing equipment enhance sealant performance. We suggest the following dispensing equipment for the user's evaluation in light of the user's particular purpose and method of application. Please be sure to follow the equipment manufacturer's precautions, directions for use, and recommendations for equipment.

Air Motor: 4¹/₄ in. diameter minimum.

Pump Tube: Stainless steel with PTFE packings. Double acting ball check type. Pressure primer required with tire-type follower plate suggested.

Hose: High pressure neoprene.

Pump Ratio: 60°F (16°C) or above, uses a 10:1; below 60°F (16°C), uses a 24:1.

Note: Pressure ratio and air motor size of pump may have to be changed if hose length or I.D. is changed. Flow rate with 20 ft. of 1/2 in. hose, 1/4 in. tip flow gun at 60°F (16°C), 10 to 1 ratio pump was one pound per minute.

Handling/Application Information

Surface Preparation: To obtain maximum sealing efficiency, the surface to which the sealer is applied must be clean, free of moisture and loose particles. Masonry surfaces should be brushed free of loose dust. If necessary, metal surfaces should be wiped with solvent such as 3M™ Scotch-Grip™ No. 3 Solvent followed by wiping with a clean, dry cloth.*

Application: 3M™ Weatherban™ Acrylic Sealant 606-NF applies easily, can be painted over within 20-30 minutes after application and dries to a tough, flexible, rubber-like bead. When dry, it resists water, vibration, heat, cold, and adheres well to many bare metal, primed metal and painted surfaces. Ideal for sealing many interior or exterior joints and can be smoothed to a feather edge using a wet spatula.

Material will form a plug in the nozzle of partly used cartridges. Plug is easily removed allowing usage of remaining material.

Cleanup: Wet sealant can be readily cleaned up with water. For removal of dried sealer from tools and equipment, the use of solvent such as 3M™ Scotch-Grip™ Solvent No. 2 is suggested.* Dried excess sealant from application sites may be removed by scraping with a sharp spatula followed by wiping with a cloth or hot, soapy water and a coarse cloth.

Drying Rate: At 75°F (24°C) and 50% relative humidity, will generally dry "tack-free" to the touch in less than one-half hour. Drying time will vary with atmospheric conditions and joint design.

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

Typical Performance Characteristics

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Temperature Performance Range: Retains its flexibility at temperatures as low as -28°F (-33°C) and up to 180°F (82°C).

Weld-Through Properties: Can be successfully spot welded through if the spot welder is of the type that has an electrode on either side of the joint being joined.

Weatherban™ Acrylic Sealant 606-NF

Typical Performance Characteristics (continued)

180° Peel Strength: Values listed below were obtained using a canvas to substrate construction. After drying the assembly for 24 hours at 75°F (24°C) and 48 hours at 160°F (71°C), the bonds were tested in a Scott Tester, 180° peel, 2 in./minute jaw separation rate.

Substrate	Peel Strength (PIW)	Type Failure
Glass	6	Cohesive
Bare Aluminum	5	Cohesive
Anodized Aluminum	6	Cohesive
Cold Rolled Steel	8	Cohesive
Galvanized Steel	5	80% Adhesive
Stainless Steel	8	Cohesive
Concrete	6	Cohesive
Ceramic Tile		
Glass surfaces	7	Cohesive
Porous surfaces	8	Cohesive
Rigid Vinyl	7	Cohesive
Marine Fiberglass	6	Cohesive
Oak Board	8	Cohesive
Fir Plywood	5	80% Wood Failure
Baked Enamel	1	Adhesive

Important: It should be noted that although 3M™ Weatherban™ Acrylic Sealant 606-NF has good adhesion to many surfaces, it will lose most of its adhesion if totally submerged in water for 24 hours. Adhesion loss should not result from occasional wetting or high humidity if properly applied.

Heat Resistance: Free cured films gave the following properties when pulled at different temperatures using an Instron tensile tester:

Temperature	Tensile Strength	Elongation
R.T.	215 psi	160%
120°F (49°C)	135 psi	175%
140°F (60°C)	145 psi	165%
160°F (71°C)	130 psi	150%
200°F (93°C)	130 psi	130%
250°F (121°C)	110 psi	110%

Similar films were aged at 180°F (82°C) and then tested at 75°F (24°C):

Time at 180°F (82°C)	Tensile Strength	Elongation
7 days	230 psi	175%
14 days	235 psi	150%
30 days	240 psi	175%
60 days	245 psi	150%

Weatherban™

Acrylic Sealant

606-NF

Typical Performance Characteristics (continued)

Weathering Resistance: Large beads of 3M™ Weatherban™ Acrylic Sealant 606-NF were aged on automotive steel panels for 1000 hours in a Sunshine Arc Weatherometer and for two years of outdoor weathering in Florida with only slight surface yellowing observed.

Storage

Store product at 60-80°F (16-27°C) for maximum storage life. Higher temperatures reduce normal storage life. Lower temperatures cause increased viscosity of a temporary nature. Product will become unusable with prolonged storage under 40°F (4°C). Protect from freezing. Rotate stock on a “first-in, first-out” basis.

Shelf Life

When stored at recommended temperatures in original, unopened containers, this product has a shelf life of 15 months from date of 3M shipment.

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

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product 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. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

Warranty, Limited Remedy, and Disclaimer

Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 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 OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 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 where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

ISO 9001:2000

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



Industrial Adhesives and Tapes Division

3M Center, Building 225-3S-06
St. Paul, MN 55144-1000
800-362-3550 • 877-369-2923 (Fax)
www.3M.com/industrial



Recycled Paper
40% pre-consumer
10% post-consumer

3M, Weatherban and Scotch-Grip are trademarks of 3M Company.
Printed in U.S.A.
©3M 2010 78-6900-1005-9 (9/10)