



TECHNICAL DATA SHEET

OSI
Professional Grade
Adhesives & Sealants

Formula #38™
Drywall & Framing Adhesive

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DESCRIPTION

OSI® Formula #38™ Metal Framing & Drywall Adhesive is a high quality, non staining, waterproof adhesive specially developed for adhering drywall to structurally sound surfaces. The unique light colored formula is best suited for bonding gypsum board to wood or metal studs, laminating gypsum board to gypsum board and bonding gypsum board to concrete or block walls. Formula #38™ provides sufficient open time for the positioning of gypsum panels and will allow up to 50% reduction in the use of mechanical fasteners generally required in applications without adhesives. The mastic type properties of this product offer excellent initial tack and rapid bond development and the ability to bridge minor framing irregularities that occur. When cured, Formula #38™ provides permanent holding power, yet is flexible enough to allow for structural movement due to settling. Structural stress is distributed equally throughout the bonding area which provides for greater strength and safety in wall and ceiling assembling without weak points.

RECOMMENDED FOR:

Formula #38™ is best suited for bonding gypsum board to wood or metal studs, laminating gypsum board to gypsum board and bonding gypsum board to concrete or block walls. It is widely used in new construction of single-family and multi-family homes, manufactured housing, commercial construction and all remodeling, remedial and renovation projects where drywall or gypsum products are installed. Formula #38™ is designed to make installations quick, easy and less costly. When applied as directed, the adhesive combined with the approved mechanical fasteners is the preferred method for permanent, safe installations.

NOT RECOMMENDED FOR:

- Use on unlined expanded or extruded polystyrene foam
- Use on polystyrene or ABS plastic panels
- Use on pre-finished vinyl covered gypsum panels
- Applications requiring temperature resistance greater than 140°F (60°C)
- Bonding two non-porous surfaces

FEATURES & BENEFITS:

Feature	Benefits
Water and weatherproof.....	Can be used for interior or exterior applications
High initial grab.....	Reduces fastener use up to 50 to 60%
Gap filling.....	Use on irregular surfaces. Bridging capabilities up to 1/4"; Reduces sound transmission

Item #	Package	Size
827634	Paper Cartridge	28 Fl. Oz.

COVERAGE

For a 28 fl. oz. cartridge:
 A 1/4" (6 mm) bead extrudes approximately 85.8 ft (26.1 m).
 A 3/8" (9.5 mm) bead extrudes approximately 38.1 ft (11.6 m).

DIRECTIONS

Tools Typically Required:

Utility knife, caulking gun or trowel, tool to puncture cartridge seal, hammer, nails or screws.

Safety Precautions:

Wear gloves. Wash hands after use. Interior applications require ventilation to the outside during application and cure.

Preparation:

Apply and cure between 20°F (-7°C) and 100°F (38°C). For best performance, use at temperatures greater than 65°F (18°C). All surfaces must be clean and free of dust, dirt, oil, mud, ice, snow, standing water and other foreign substances prior to application. To obtain maximum adhesion, surfaces should be flat and close fitting to provide adequate contact. Release agents must be removed from poured concrete. Newly poured concrete must be allowed to cure 28 days prior to adhesive application. Painted surfaces must be well cured and free of loose paint. Cut nozzle to desired bead size and puncture inner seal. Proper adhesive application is obtained by double cutting the spout on each cartridge, producing 45 degree angles opposite each other.

General Application Guidelines:

Pre-cut and fit materials before applying adhesive. Apply no more adhesive than can be used in 30 minutes. If work is delayed, remove excess adhesive and begin again. Use temporary bracing or blocking until adhesive sets. Adequate ventilation must be provided when used in all interior applications.

Applications:

Wood & Metal Studs:

Apply a continuous ¼" to 3/8" bead of adhesive to all framing members starting 4 to 6 inches from the top and ending 4 to 6 inches from the bottom of where each panel is positioned on the stud. Apply two ¼" parallel beads of adhesive on framing members where joints abut. Position gypsum board and press firmly in place. Use flat panels only. Do not use warped panels unless they have been pre-bowed. Follow the fastening schedule for Adhesive Nail-on Attachment in the Gypsum Association Manual (GA-201) or Table No. 47-G of the Uniform Building Code. Perimeter fasten 16" O.C. for walls and ceilings and 24" O.C. in the field of ceiling applications. Field fasteners are not required for wall construction unless walls show evidence of warping. For shear wall construction, field fasteners are required.

Laminating Gypsum Board:

Apply a continuous ¼" zigzag bead of adhesive 12" O.C. to the base ply or fixed structure. Position and firmly press panels to the bonding surface. Follow recommended fastening schedules in Table No. 47-H of the Uniform Building Code for two-ply construction or refer to the Gypsum Association Manual (GA-201) for multi-ply construction. For single-ply application to concrete walls, concrete should be cured at least 28 days and free of any release agents prior to using the adhesive. Permanent mechanical fasteners are required the same as for applications to wood or metal studs. Field fasteners are recommended.

Fire-Resistive Construction:

Formula #38™ Drywall and Metal Framing Adhesive is not a fire-rated adhesive. However, this adhesive may be used in fire-rated assemblies providing the framing, fastener size, type and spacing follow that of the system tested. No deviation is permitted whether or not adhesive is used.

Clean-up:

Clean tools and uncured adhesive residue immediately with mineral spirits. Cured adhesive may be carefully cut away with a sharp-edged tool.

STORAGE AND DISPOSAL

NOT DAMAGED BY FREEZING. Store away from heat, flame and spark in a cool, well-ventilated place at room temperature (70° ± 5°F). In cold weather, product should be kept at room temperature for at least 24 hours prior to use to improve extrusion. Use an approved hazardous waste facility for disposal.

PRECAUTIONS

WARNING! FLAMMABLE. Contains Heptane and Naphtha Solvents. Prevent build-up of vapors. Vapors may cause flash fires. Use only in areas of cross-ventilation. Open all windows and doors. Keep away from heat, sparks or open flame. Avoid prolonged breathing of vapors. Avoid prolonged or repeated skin contact.
KEEP OUT OF REACH OF CHILDREN.

Refer to the Material Safety Data Sheet (MSDS) for further information

DISCLAIMER

The information and recommendations contained herein are based on our research and are believed to be accurate, but no warranty, express or implied, is made or should be inferred. Purchasers should test the products to determine acceptable quality and suitability for their own intended use. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

TECHNICAL DATA

Typical Uncured Physical Properties		Typical Application Properties	
<u>Color:</u>	Tan	<u>Application Temperature:</u>	Apply between 20°F (-7°C) and 100°F (38°C)
<u>Appearance:</u>	Thick paste	<u>Open time:</u>	30 minutes
<u>Base:</u>	Synthetic Rubber and resins	<u>Cure Time:</u>	3 to 7 days Note: Cure time is dependent upon application conditions such as, temperature, humidity and amount of adhesive applied.
<u>Specific Gravity:</u>	1.20		
<u>% Solids:</u>	70% by weight	<u>Odor:</u>	Solvent (Apply and cure in a well ventilated area).
<u>Flash Point:</u>	21°F (-6.11°C)		
<u>Flame Spread:</u> (ASTM E 84)	6		
<u>Smoke Development:</u> (ASTM E 84)	1		
<u>VOC Content:</u>	380 g/L (30% by weight)		
<u>Shelf Life:</u>	18 months from date of manufacture (unopened)		
<u>Lot Code Explanation:</u>	YYDDD YY = Last two digits of year of manufacture DDD = Day of manufacture based on 365 days in a year For example: 09061 = 61 st day of 2009 = March 2, 2009		
(Lot code is stamped on bottom plunger of cartridge)			

Typical Cured Performance Properties

<u>Color:</u>	Tan	<u>Specifications:</u>	<ul style="list-style-type: none"> ▪ Meets or exceeds ASTM C 557 ▪ Tested in accordance with ASTM E 72 for racking and shear strength ▪ Allowable shear loads 110 lb. per lin. Foot for walls ▪ U.B.C. Standard No. 47-2 ▪ Tested per ASTM E 84 Surface Burning Characteristics ▪ FHA-HUD Approved
<u>Cured Form:</u>	Non-Flammable, Rubbery solid		
<u>Service Temperature:</u>	-20°C (-29°C) to 140°F (60°C)		
<u>Water Resistant:</u>	Yes		