



TECHNICAL DATA SHEET


 Professional Grade
 Adhesives & Sealants
SW-325
**Heavy Duty Shear &
 Construction Adhesive**

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DESCRIPTION

OSI® SW-325 is a high performance, heavy duty latex based construction adhesive designed for drywall applications and fabricating shear-wall rated assemblies. This non-flammable, low gassing adhesive can be used for all interior and in-plant construction use. This ultra-low VOC product offers fast strength development and high shear strength, making it well suited for a variety of construction projects requiring high bond strength. The product's unique formulation offers Green Builders a high performance construction adhesive over traditional solvent based adhesives without sacrificing strength and performance. Engineered for use with most building materials.

RECOMMENDED USES:

- Bonding drywall to wood or metal framing
- Adhering foamboard, decorative paneling and other types of panels to wood furring strips, concrete walls or drywall
- Can be used in most interior remodeling or repair projects. Bonds to drywall, paneling, all types of wood trim, plywood, hardboard, OSB, countertops and similar materials
- Can be used for recreational and prefab modular manufacturing

NOT RECOMMENDED FOR:

- Underwater applications or permanent water immersion
- Applications requiring temperature resistance greater than 170°F (77°C)
- Exterior applications where rain is expected within 24 hours
- Use on mirrors and metals that will corrode
- Bonding two non-porous surfaces
- Polyethylene, polypropylene, Nylon™ or Teflon™
- Cement Board (Durock™)

FEATURES & BENEFITS:

Feature	Benefits
Ultra low VOC content	Meets stringent State and Federal VOC requirements
Water-based adhesive	Non-flammable, environmentally friendly, non-toxic
Low odor	Great for indoor projects – no strong solvent odor
Bonds to most building materials	Provides a strong, durable bond to multiple surfaces
Gap filling	Will bridge minor gaps when bonding irregular Surfaces
Easy cleanup with water (uncured adhesive)	Eliminates the use of harsh cleaning chemicals
High Grab	Reduces nailing and fastener requirements by up to 50%



Item #	Package	Size
827631	Paper Cartridge	28 fl. oz. (828 mL)

COVERAGE

For a 28 fl. oz. (828 mL) cartridge:

A 1/4" (6 mm) bead extrudes approximately 86 ft. (26 m).

A 3/8" (9.5 mm) bead extrudes approximately 38 ft. (12 m).

DIRECTIONS

Tools Typically Required:

Utility knife, caulking gun and tool to puncture inside seal of cartridge. For best application results, OSI® recommends the use of a high quality caulking gun such as the Albion® B12Q Cartridge Gun.

Safety Precautions:

Wear gloves.

Preparation:

The temperature of the product, the surfaces and the working area must be above 40°F (4°C) and below 100°F (38°C). For best performance, apply adhesive at 70°F (21°C). Ensure surfaces to be bonded are clean, dry, structurally sound and free of dust, grease, oil, and other foreign contaminants. Pre-cut and fit materials before applying adhesive. Cut off tip of cartridge in an "X" cutting method, cutting both sides of the nozzle. Puncture inside seal of cartridge.

Application:

General Construction Use:

Using a caulking gun, apply adhesive to surfaces using a 1/4" (6 mm) to 3/8" (9.5 mm) round bead size. Join surfaces together within 10 minutes of application. If work is delayed, remove excess adhesive and begin again. Note: Actual cure time will vary depending upon ambient conditions at the time of application.

Paneling and Foamboard Installation:

Apply continuous beads of adhesive to studs or furring strips (wood or metal). For wall surfaces, prepare surface accordingly and apply continuous parallel beads 12" (30 cm) to 16" (40 cm) O.C. Position panel and press firmly into place. Use finishing nails or mechanical fasteners along top and bottom edges to hold panels in place. Temporary blocking of panels may be required until adhesive sets.

Drywall Installation to Wood & Metal Studs:

Apply a continuous 1/4" 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 1/4" 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-216) 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 1/4" to 3/8" 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-216) 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.

Clean-up:

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

STORAGE AND DISPOSAL

DAMAGED BY FREEZING. Store in a cool, dry location at room temperature. For maximum shelf life store at 75°F (24°C). Take unwanted product to an approved household hazardous waste transfer facility. Hardened material may be disposed of with trash.

LABEL PRECAUTIONS

CAUTION! CONTAINS ETHYLENE GLYCOL and Crystalline Silica. Avoid eye contact. Do not take internally. Use with adequate ventilation. **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> 40°F (4°C) to 100°F (38°C)
<u>Appearance:</u> Thick paste	<u>Repositioning Time:</u> 20 minutes @ 70°F, 50% Relative Humidity
<u>Base:</u> Acrylic	<u>Cure Time:</u> 48 hours Cure time depends upon temperature, humidity, porosity of substrate and amount of adhesive used.
<u>Odor:</u> Mild acrylic odor	
<u>Viscosity:</u> 225,000 to 325,000 cps	
<u>Solids Content:</u> 66.3% by weight (At 266°F (130°C) to constant weight)	
<u>VOC Content:</u> 0.1% by weight (< 2 g/L)	
<u>Shelf Life:</u> 24 months from date of manufacture (Unopened)	
<u>Lot Code Explanation:</u> (Lot code stamped on bottom plunger of cartridge)	
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	

Typical Cured Performance Properties	
<u>Color:</u>	Tan
<u>Cured Form:</u>	Non-flammable solid
<u>Service Temperature:</u>	10°F (-12°C) to 170°F (77°C)
<u>Water Resistant:</u>	Yes, the adhesive is water-resistant once fully cured. Do not use outdoors if rain is expected within 24 hours.
<u>ASTM C 557 - Shear Strength Results:</u> (Plywood to Drywall Paper Backing)	
Ref. # 10.1.4: 24 hours @ 73°F:	26.3 psi (Requirement: > 10 psi)
Ref. # 10.1.5: 14 days @ 73°F:	42.3 psi (Requirement: > 40 psi)
<u>ASTM C 557 – Tensile Strength Results:</u> (Douglas Fir to Drywall Paper Backing)	
Ref. # 10.2.3: 24 hours @ 73°F:	18.3 psi (Requirement: >15 psi)
Ref. # 10.2.4: 14 days @ 73°F:	27.5 psi (Requirement: > 25 psi)
<u>ASTM D 3498 - Dry Lumber Bonding:</u> (Douglas Fir to Douglas Fir Plywood)	
24 hours:	387 ± 46 psi
48 hours:	519 ± 46 psi
7 days:	613 ± 43 psi
28 days:	570 ± 59 psi (Requirement: > 150 psi)
<u>ASTM D 3498 - Gap Filling @ 0.06 inches:</u> (Douglas Fir to Douglas Fir Plywood)	
	440 ± 40 psi (Requirement: > 100 psi)