



TECHNICAL DATA SHEET

HIGH STRENGTH POLYURETHANE SUBFLOOR ADHESIVE

SF450+ POLYURETHANE

2X STRENGTH AND COVERAGE

Description: OSI SF450+ Polyurethane Subfloor Adhesive is a one component, polyurethane based, moisture-curing adhesive. It offers superior adhesion to most building substrates, providing 2x strength than normal subfloor adhesives. When using the pre-cut 1/4" nozzle, it provides twice the coverage. SF450+ Polyurethane forms a permanent durable bond even when applied to wet, frozen or treated lumber. This low VOC formulation can be used for both interior and exterior jobs, and meets stringent State and Federal VOC regulations.

Available As:

Item #	Size	Color
1943974	28 fl oz (828 ml)	Tan



Features & Benefits:

- 2X Stronger than Ordinary Subfloor Adhesives
- 1/4" Pre-Cut Nozzle Provides 2X the Coverage
- Bridges Minor Gaps in Framing
- Adheres to Wet, Frozen and Treated Lumber
- Helps Reduce Squeaky Floors

Recommended For:

OSI SF450+ Polyurethane can be used in most interior and exterior construction projects either on the job or the production line. It bonds all wood to wood assemblies dry, wet or frozen. Primarily designed for on-site bonding of subfloor and plywood decking to joists during cold weather. OSI SF450 Heavy Duty is suitable for subfloor, glued floor systems, tongue-and-groove flooring, standard wood construction, concrete, masonry, and wood-to-wood assemblies. Ideal for use in prefab or modular construction.

For Best Results:

- Not for use on expanded or extruded polystyrene foam
- Gaps that are greater than 0.060 inches will require a larger bead of adhesive
- There are a wide variety of treatments for wood that can affect adhesive performance, an adhesion test is suggested prior to full application
- Not for use on polyethylene (PE), polypropylene (PP) or flexible PVC
- Not for use on bitumen coated surfaces
- Not for use on tub surrounds and other solid sheet goods made from rigid polystyrene
- Not suitable for permanent water immersion

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)

Typical Uncured Physical Properties:

Color:	Tan
Appearance:	Thick paste



TECHNICAL DATA SHEET

Base:	Polyurethane	
Odor:	Minimal	
% Solids:	90%	
Specific Gravity:	1.26	
Viscosity:	550,000 cps	5 rpm @ 72°F with a 5/16" opening
Flashpoint:	200°F (93°C)	
VOC Content:	4% by weight	CARB
	45 g/L	SCAQMD rule 1168
Shelf Life:	12 months from date of manufacture (unopened)	
Lot Code Explanation:	3L4028HP11	
Stamped on bottom plunger of cartridge	YY= Last two digits of year of manufacture DDD= Day of manufacture based on 365 days in a year Example: 14061 = 61 st day of 2014 = March 2, 2014	

Typical Application Properties:

Application Temperature:	The adhesive should be above 40°F (5°C) and below 100°F (37°C) for application	
Open Time:	30 to 45 minutes*	At 78°F and 50% relative humidity
Repositioning Time:	45 minutes*	At 78°F and 50% relative humidity
Clamping Time:	24 hours	
Cure Time:	24 to 48 hours*	
	Time is dependent on temperature, humidity, porosity of substrate and amount of adhesive applied	

Typical Cured Performance Properties:

Color:	Tan	
Cured Form:	Non-flammable, rubbery solid	
Service Temperature:	0°F (-18°C) to 160°F (71°C) 0°F (-18°C) to 250°F (121°C)	Long Term (Continuous) Short Term (Intermittent)
Water Resistant:	Yes	
Compression Shear Strength:	ASTM D3498	
Dry Lumber:	638 psi (4.4 N/mm ²)	
Wet Lumber:	404 psi (2.8 N/mm ²)	
Frozen Lumber:	773 psi (5.3 N/mm ²)	
Gap Filling:	468 psi (3.2 N/mm ²)	
Moisture Resistance:	585 psi (4.0 N/mm ²) no delamination	
Shear Strength:	APA AFG-01	
Wet Lumber	Bond area = 1.5 in ²	
Douglas Fir:	356 kg (785 lbs)	
Southern Pine:	269 kg (593 lbs)	
Frozen Lumber		
Douglas Fir:	380 kg (837 lbs)	
Southern Pine:	346 kg (762 lbs)	
Dry Lumber		
Douglas Fir:	404 kg (890 lbs)	
Moisture Resistance		
Douglas Fir:	413 kg (911 lbs)	
Oxidation Resistance	Passed	
Bond Strength Development:	Douglas Fir to Douglas Fir, 73°F	
6 hours cure:	208 psi (1.4 N/mm ²)	



TECHNICAL DATA SHEET

8 hours cure:	279 psi (1.9 N/mm ²)
16 hours cure:	450 psi (3.1 N/mm ²)
24 hours cure:	524 psi (3.6 N/mm ²)

Specifications:	Meets the following specifications:
	<ul style="list-style-type: none">• ASTM D 3498• APA AFG-01• Conforms to performance requirements of HUD UM 60A

Directions:

Tools Typically Required:

Utility knife, caulking gun, spray mist water bottle (optional) 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® B12 and B12Q Cartridge Guns.

Safety Precautions:

Wear gloves. Cured adhesive on bare skin will not come off immediately with washing and will cause skin to darken. Cured adhesive and discoloration will come off in about 3 days.

Preparation:

Adhesive should be applied above 40°F (5°C). Surfaces must be clean and free of frost, standing water, grease, dust and other contaminants. Pre-fit all materials and protect finished surfaces. Nozzle is pre-cut to ¼" bead. Puncture inner seal. Be very careful not to allow SF450+ to cure on a finished surface.

Application:

Apply adhesive to one surface of the material being bonded. Press the surfaces firmly together within 15-20 minutes. Materials may be repositioned within 30-45 minutes after joining the surfaces. If bonding two non-porous surfaces (such as metal and fiberglass), add water in the form of a very light or atomized spray from a spray mist water bottle to the extruded adhesive. The repositioning time will then be reduced to less than 30 minutes. Use mechanical support for 24 hours while the adhesive cures. Cure time is dependent upon temperature, humidity, porosity of substrate and amount of adhesive used. Low temperature and humidity will slow cure time.

Clean-up:

Clean tools and adhesive residue immediately with mineral spirits. SF450+ must be removed mechanically once cured. Solvents have little effect on cured SF450+.

Storage & Disposal:

NOT DAMAGED BY FREEZING. After completion of work, seal cartridge nozzle tightly with aluminum foil. Wrap the foil tightly around the nozzle and seal it with tape. Applying petroleum jelly around the opening before sealing with aluminum foil can create a more airtight seal. Product cures with exposure to moisture. Use an approved hazardous waste facility for disposal.

Label Precautions:

WARNING! HARMFUL IF INHALED. EYE, SKIN AND RESPIRATORY IRRITANT. MAY CAUSE SKIN AND RESPIRATORY SENSITIZATION.

WARNING: Contains petroleum distillates and methylene diisocyanate (MDI). Individuals with lung or breathing problems or prior sensitization to isocyanates should not use this product. Avoid breathing vapors. Vapors may cause headaches, dizziness and nausea. Open windows and doors to ensure cross ventilation during application and until all odors are gone. Avoid contact with eyes and skin. Prolonged or repeated exposure may cause dermal or respiratory sensitization, effects may be permanent. Gloves recommended. **FIRST AID:** If swallowed, call a physician or Poison Control Center immediately. Do not induce vomiting. For eye contact flush with water for 15 minutes, call a doctor. For skin contact wash thoroughly with soap and water. If inhaled, move to fresh air. If symptoms develop or persist, get immediate medical attention. **INTENTIONAL MISUSE BY DELIBERATELY INHALING CONTENTS MAY BE HARMFUL OR FATAL. DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN.**

WARNING: This product contains chemicals known to the State of California to cause cancer.

Refer to Safety Data Sheet (SDS) for further information.

Limited Warranty:

This product is warranted to be free from defects in materials when used as directed. Henkel's sole obligation shall be, at its option, to replace or refund the purchase price of product proven to be defective. Henkel makes no other warranty, express or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE and will not be liable for consequential or incidental damages. This limited warranty gives you specific legal rights, which vary from state to state. Henkel may be contacted at 1.800.624.7767 M-F 9:00 am to 4:00 pm ET for warranty assistance.

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TECHNICAL DATA SHEET



OSI Tougher than the Elements. For Professional Use Only. The Battle will be Fierce.

OSI works side by side with residential builders, contractors and remodeling professionals who use our products everyday on their jobsites. OSI combines this deep understanding with the sophisticated global innovation and manufacturing excellence of Henkel to make the world's best professional-grade caulks, sealants and adhesives.

1-800-624-7767 – Mon-Fri - 9:00a – 4:00p ET



OSI Brand is part of the Henkel family of brands. Founded in 1876, Henkel is a global leader in the consumer and industrial businesses. Henkel operates worldwide with leading brands and technologies in three business areas: Laundry & Home Care, Beauty Care and Adhesive Technologies.

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