



# TECHNICAL DATA SHEET

## SUBFLOOR ADHESIVE

# SF450 HEAVY DUTY

THE TRUE  
ALL WEATHER



**Description:** OSI SF450 Heavy Duty Subfloor Construction Adhesive provides a powerful, permanent bond and is formulated for all heavy duty interior or exterior subfloor construction. Cold weather formula for easier extrusion and excellent adhesion in all weather conditions. Bonds dry, wet, frozen and treated lumber to most building materials. Offers fast set and superior strength and development. Low VOC formulation meets stringent State and Federal VOC regulations.

### Available As:

Item #	Size	Color
1596529	28 fl oz (828 ml)	Tan

### Features & Benefits:

- True All-Weather Subfloor Adhesive
- Cold Weather Gunnable
- Bridges Minor Gaps in Framing
- Reduces Squeaky Floors
- Strong Adhesion to Most Building Materials

### Recommended For:

OSI SF450 Heavy Duty 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 use in plaster, metal, masonry, concrete, wood, brick, ceramic tile, slate, treated lumber and most other projects requiring an adhesive. Ideal for use in prefab or modular construction.

### For Best Results:

- Not for use on polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE) and acrylic
- Not recommended for use on unlined expanded or extruded polystyrene plastic foams
- Not suitable for permanent water immersion
- Not suitable for applications requiring temperature resistance greater than 150°F or below -20°F
- Not for use on mirrors, tub and shower surrounds

### 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)



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## Typical Uncured Physical Properties:

Color:	Light Tan	
Appearance:	Thick paste	
Base:	Synthetic rubber and resins Formaldehyde free	
Odor:	Sweet, aromatic	
Specific Gravity:	1.44	
Viscosity:	210,000 cps	
Flashpoint:	1.4°F (-17°C)	
% Solids by Weight:	80%	
VOC Content:	0.25% by weight 7.5 g/l	CARB SCAQMD rule 1168
Shelf Life:	18 months from date of manufacture (unopened)	
Lot Code Explanation:	<b>YYDDD</b>	
Stamped on plastic nozzle	<b>YY</b> = Last two digits of year of manufacture <b>DDD</b> = Day of manufacture based on 365 days in a year Example: 14061 = 61 <sup>st</sup> day of 2014 = March 2, 2014	

## Typical Application Properties:

Application Temperature:	Apply and cure between 0°F (-18°C) and 140°F (60°C) For best results, store adhesive at 73°F (23°C) 24 hours before use
Open Time:	15 minutes At 78°F and 50% relative humidity
Repositioning Time:	30 minutes
Cure Time:	2 to 7 days Time is dependent on temperature, humidity, porosity of substrate and amount of adhesive applied
Extrusion Force:	Approx. 60 lbs At 73°F
Vertical Sag:	0.125 inches ASTM C639

## Typical Cured Performance Properties:

Color:	Light Tan
Cured Form:	Non-flammable solid
Service Temperature:	-20°F (-29°C) to 150°F (66°C)
Water Resistant:	Yes
Shear Strength :	ASTM D3498
Wet Lumber:	295 psi
Frozen Lumber	165 psi
Dry Lumber:	246 psi
Gap Filling:	248 psi
Moisture Resistance:	152 psi no delamination
Specifications:	Meets and exceeds the following specifications: <ul style="list-style-type: none"><li>American Plywood Association (APA) AFG-01</li><li>ASTM D 3498-93</li><li>HUD UM 60A</li></ul>



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## 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® B12 and B12Q Cartridge Guns.

### Safety Precautions:

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

### Preparation:

The temperature of the adhesive, surfaces and the working area must be between 0°F (-18°C) and 100°F (38°C). For smooth, fast, easy application during cold weather, store adhesive at room temperature (70° ± 5°F) 24 hours prior to use. Ensure surfaces to be bonded are clean, structurally sound and free of standing water, snow, ice, dust, grease, oil or other contaminants. To increase adhesion, sand glossy surfaces to a dull finish. Pre-fit all materials prior to applying product. Cut off tip of cartridge at 45° angle to desired bead size. For exterior applications, the recommended bead size is 3/8" (9.5 mm). Puncture seal inside of nozzle.

### Application:

Using a caulking gun, apply adhesive in a continuous bead to joists, studs or back side of siding or panels, whichever is appropriate. Ensure that all outer edges and centers are adequately supplied with adhesive to ensure a complete and total bond. Use nails sparingly for support and as an aid to alignment during installation. Repositioning time is approximately 30 minutes. After use, wipe off nozzle tip and recap immediately.

### General Construction Use:

Pre-cut and fit materials before applying adhesive. All materials should be glued together within 15 minutes after adhesive application. If work is delayed, remove excess adhesive and begin again.

### Sub-Floor and Decking:

Apply continuous beads (1/4" to 3/8") of adhesive to all floor joists. For tongue and groove panels, apply 1/4" beads to groove avoiding excess "squeeze out". Position panels allowing 1/8" gap for expansion at butt joints and nail within 15 minutes of adhesive application. Use proper nailing method as designated by APA Adhesive Nail-On Schedule.

### Clean-up:

Clean tools and uncured adhesive residue immediately with mineral spirits or paint thinner in a well-ventilated area to the outdoors. Cured adhesive may be carefully cut away with a sharp-edged tool.

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## Storage & Disposal:

NOT DAMAGED BY FREEZING. For best results, store at 70° ± 5°F in a cool, dry place. Store away from heat, flame and sparks. Take unwanted product to an approved household hazardous waste transfer facility. Hardened material may be disposed of with trash.

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## Label Precautions:

**DANGER! EXTREMELY FLAMMABLE. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF INHALED OR SWALLOWED. MAY CAUSE EYE, SKIN AND RESPIRATORY IRRITATION.**

**DANGER!** Contains acetone, methyl acetate, and crystalline silica. **EXTREMELY FLAMMABLE.** Vapors may ignite explosively. Do not use or store near heat, sparks or open flame. Do not smoke when using this product. Extinguish all flames and pilot lights and turn off all sources of ignition, including stoves, heaters and electric motors during use and until all vapors are gone. Prevent build-up of vapors by opening all windows and doors to achieve cross ventilation. Use in a well-ventilated area. Avoid breathing vapors. Avoid contact with eyes and skin. Prolonged or repeated exposure may affect the nervous system causing dizziness, headache or nausea. If you experience eye watering, headache or dizziness, leave the area to obtain fresh air. Do not take internally. **FIRST AID:** If swallowed do not induce vomiting, call a physician or Poison Control center immediately. For eye contact flush with water for 15 minutes, call a physician. For skin contact wash thoroughly with soap and water. If overcome by vapors, get fresh air. **KEEP OUT OF THE REACH OF CHILDREN.**

**WARNING:** This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

**NOTICE:** Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage or may cause cardiac arrhythmia. **INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.**

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

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## 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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**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

[www.ositough.com](http://www.ositough.com)



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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