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TECHNICAL DATA SHEET

EP-1000™
Enhanced Polyurethane Sealant

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DESCRIPTION

OSI® EP-1000™ is an Enhanced Polyurethane Exterior Sealant that features the exclusive FLEXTEC™ Technology. OSI® EP-1000™ is designed to resist the unsightly effects of prolonged UV exposure that traditional polyurethane sealants experience. The innovative fast dry formula is low odor, paintable and provides a strong, flexible bond on a wide variety of building materials in all weather conditions. OSI® EP-1000™ is easy to tool and is non-yellowing and crack resistant.

RECOMMENDED FOR:

- Windows, doors and vinyl siding
- Fiber cement siding, cedar and other porous siding, concrete, masonry and steel
- OSB, plywood, glass and aluminum
- Many plastics and composites
- Interior / Exterior applications

LIMITATIONS:

Not suitable for use on the following substrates:
- Polypropylene, polyethylene, polytetrafluoroethylene and acrylic
- Natural stones and marble
- Copper and brass
- Bituminous substrates or on building materials which may bleed oils, plasticizers or solvents which could attack the sealant

Not suitable for the following applications:
- Use on joints with water pressure or continuous water immersion (i.e. swimming pools or aquariums). Should not be used to seal bathtubs or sinks
- Use as a glazing sealant
- Applications requiring temperature resistance greater than 176°F (80°C) or below -22°F (-40°C)

FEATURES & BENEFITS

Feature	Benefits
Good elasticity and movement capability of ± 25%.....	Permanently flexible
Water-resistant.....	Great for indoor or outdoor applications
Can be applied to damp surfaces.....	Will not bubble or lose adhesion over time
Very good UV, weather and aging resistance....	Will not yellow, crack or split over time
Paintable and durable.....	Long-lasting, professional finish

Color	Item #	Package	Size
001 White	1364248	Plastic Cartridge	10 fl. oz.
301 Clay	1364311	Plastic Cartridge	10 fl. oz.
517 Grey	1364280	Plastic Cartridge	10 fl. oz.
205 Brown	1364249	Plastic Cartridge	10 fl. oz.
223 Brown	1364312	Plastic Cartridge	10 fl. oz.
427 Almond	1364313	Plastic Cartridge	10 fl. oz.

COVERAGE

A 10 fl. oz. (295 mL) cartridge will extrude approx. 30.6 ft. (9.3 m) of a ¼" (6 mm) bead.
A 10 fl. oz. (295 mL) cartridge will extrude approx. 13.6 ft. (4.1 m) of a 3/8" (9.5 mm) bead.

DIRECTIONS

Tools Typically Required:
Utility knife and caulking gun.

Safety Precautions:
Wear gloves. Wash hands after use.

Preparation:
Apply sealant between 41°F (5°C) and 104°F (40°C). All surfaces must be clean, dry and free of old caulk, grease, dust and other contaminants. Masking tape can be used if sharp joint lines are required. Remove the tape immediately after application. Insert cartridge into caulking gun, cut the tip off the cartridge at a 45° angle to desired bead size (3/8" is recommended).

Application:
The joint width must be designed to suit the movement capability of the sealant. As a general rule, the joint width must be greater than 10 mm and less than 35 mm. A width to depth ratio of 1:0.5 must be maintained. Using a caulking gun, apply sealant with steady pressure, forcing the sealant into the joint. Three sided adhesion should be avoided by the use of a backer rod or release layer. If the depth of the joint exceeds 3/8" (9.5 mm) the use of a backer rod is recommended. Immediately tool the sealant against joint sides to ensure good adhesion. Sealant is paintable when fully cured. It is recommended to test the compatibility of the coating product before use. In the case of an oil-based/alkyd paint a latex primer should be used first.

Clean-up
Clean tools and uncured sealant residue immediately with mineral spirits or paint thinner. Cured sealant must be carefully cut away with a sharp-edged tool.

STORAGE AND DISPOSAL

NOT DAMAGED BY FREEZING. Store in a dry place between 50°F (10°C) and 77°F (25°C). Take unwanted product to an approved household hazardous waste transfer facility. Hardened material may be disposed of with trash.

LABEL PRECAUTIONS

WARNING! Contains trimethoxysilanes. Harmful if swallowed. Vapor harmful. Methanol is released during application and cure, which may affect the nervous system causing dizziness, headache or nausea. Use in a well-ventilated area. Do not breathe vapors. Avoid eye and skin contact. Prolonged or repeated skin contact may cause dermatitis. Wash hands after using. Wear gloves and safety glasses when applying product.

FIRST AID: For eye contact, flush with water for 15 minutes. Call a physician if irritation develops and persists. For skin contact, wash with soap and water. If affected by inhalation, remove to fresh air and get medical attention. If ingested, do not induce vomiting. Call a physician or poison control center immediately.
DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN.

Refer to 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

Color:	Various colors
Appearance:	Thick, lump-free paste
Base:	Moisture curing, Flextec™ polymer
Odor:	Minimal
Specific Gravity:	1.39
% Solids by Weight:	99.5%
VOC Content:	< 3% by weight (< 42 g/L)
Shelf Life:	12 months from date of manufacture (unopened)
Lot Code Explanation: (Lot code stamped along the top of the cartridge body)	YYDDD YY = Last two digits of year of manufacture DDD = Day of manufacture based on 365 days in a year For example: 09061 = 61st day of 2009 = March 2, 2009

Typical Application Properties

Application Temperature:	Apply and cure between 41°F (5°C) and 104°F (40°C)
Recommended Joint Width:	2/5” (10 mm) to 1-2/5” (35 mm)
Boeing Sag (Room Temperature):	0 inches
Skin Formation Time:	20 minutes @ 73°F (23°C) and 50% R.H.
Curing Speed:	Approx. 24 hours / 2 mm. of sealant depth @ 73°F (23°C) and 50% R.H. Note: Cure time is dependent upon temperature, humidity and depth of sealant applied.

Typical Cured Performance Properties

Color:	Various colors
Shrinkage: (ASTM D 2453)	3%
Hardness, Shore A:	40
Elongation at Break: (ISO 8339-A)	250%
Elastic Recovery:	75%
Movement Capability:	± 25%
100% Modulus:	82 psi (0.75 N/mm^2)
Tensile Strength:	211 psi (1.95 N/mm^2)
Shear Strength (7 days): (1/8” gap, 2”/min shear rate)	
Hardie Board	96 psi
Vinyl Siding	112 psi
Azek™ PVC Trim	124 psi
Coated Aluminum	127 psi

Service Temperature:	-40°F (-40°C) to 176°F (80°C)
Paintable:	Yes, once fully cured.
Water Resistant:	Yes
Specifications:	OSI® EP-1000™ is designed to meet the requirements of: ▪ ASTM C920: Type S, Grade NS, Class 25, Use NT, M, G, A, O ▪ TT-S-00230C, Type II, Class A ▪ CAN/CGSB-19-13-M87
Chemical Resistance:	▪ Resistant to water, seawater, diluted alkalis, diluted acids, cement grout and water diluted detergents. ▪ Not recommended for permanent contact with chemicals. ▪ Poor resistance to aromatic solvents, organic acids, concentrated alkalis, concentrated acids and chlorinated hydrocarbons.