

AIR BARRIER - SEALANT

323 K-NRG Gap Seal™ FR



Read Safety Data Sheet before using this product.

DESCRIPTION: 323 K-NRG Gap Seal FR™ is a fire-resistant building envelope sealant designed to prevent air passage by sealing joints, penetrations and transitions on above-grade wall air barrier assemblies. 323 K-NRG Gap Seal FR™ is a single-component, water-based acrylic mastic that cures to a tough monolithic elastomeric-like membrane. This sealant is fully compatible with 321 K-NRG Seal VP™ and passes the stringent NFPA 285 Fire Test.

USES: Use 323 K-NRG Gap Seal FR™ to seal gaps around windows, doors, rough openings, changes in angles, transitions between dissimilar materials and joints in wall substrates. When combined with KARNAK's air barrier coatings and accessories, 323 K-NRG Gap Seal FR prevents air passage and helps for a complete wall air-barrier system. Commonly used on a variety of wall substrates and sheathing prior to the installation of exterior cladding.

FEATURES, BENEFITS AND ADVANTAGES:

- Easily applied by brush or trowel
- Forms a seamless, elastomeric membrane for above grade walls
- Integral mold resistant formulation
- Excellent adhesion to most construction surfaces such as exterior gypsum boards, CMU, concrete, stone, wood and metal
- May be applied to damp concrete
- Passes NFPA 285 Fire Test

SURFACE PREPARATIONS: Surfaces should be clean and free of frost, oil, grease, dirt, excess mortar or other contaminants. Recommended application temperature is 40°F to 120°F. All surfaces must be sound, dry (except damp concrete). New concrete should be cured for a minimum of 7 days before 323 K-NRG Gap Seal FR is applied.

APPLICATION: 323 K-NRG Gap Seal FR may be applied by brush or trowel. Application should be free of voids when transitioning onto applied flashing membrane to create a uniform air-barrier. Regularly monitor wet mil thickness during application to assure adequate coverage.

Joints between panels of exterior grade gypsum, plywood and rigid insulation up to 1/4" wide should be filled with a trowel application of 323 K-NRG Gap Seal prior to application of liquid membrane. Press material firmly with trowel or brush over the area to seal. Spread sealant to an average thickness of 1/16" (64 wet mils).

Joints between 1/4" – 1/2" wide should be three-coursed with 323 K-NRG Gap Seal FR and reinforcement fabric. Spread sealant to an average thickness of 1/16". Immediately over the fabric and feather onto surface. Reinforcing fabric should extend 3" beyond each side of the joint. Joints wider than 1/2" are not permitted. Steps should be taken to use an appropriate backer material to fill the joint first before three-coursing with 323 K-NRG Gap Seal FR and reinforcement fabric. Transition joints between two dissimilar materials such as at beams, columns, window and door frames, etc., should be three-coursed with 323 K-NRG Gap Seal and reinforcement fabric. Center fabric reinforcement so that it extends a minimum of 3" onto both substrates (Refer to local code for flashing requirements on the exterior wall assembly). 321 K-NRG Seal VP is not designed for permanent exposure. Product is designed to withstand job site exposure for up to 9 months, however, good construction practice calls for covering as soon as possible. Wherever possible, begin covering membrane on south exposures, followed by remainder of surface.

COVERAGE RATE: Apply at an average thickness of 1/16" (64 wet mils) which equates to 4 gallons per 100 sq. ft., in one application. When using fabric reinforcement an additional application will be needed at the same rate of application.

PERFORMANCE PROPERTIES:

Nail Sealability:	Pass	ASTM D1970
Low Temperature Flexibility and Crack Bridging @ -20°C:	Pass	ASTM C836
Aging – Long Term Flexibility:	Pass, No Fracturing	CGSB 71-GP-24M
Resistance to Mold, Mildew & Fungal Growth:	0 / No Growth	ASTM D5590
NFPA 285 – Standard Fire Test Method For Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components:	Pass	NFPA 285

PHYSICAL PROPERTIES & SPECIFICATIONS

Weight per Gallon:	12.4 lbs.
Solids by Weight:	75%, Nominal
Solids by Volume:	50%, Nominal
Color:	Red
Dry Time:	2 hrs. to touch; 24 hrs. firm set at 60°F, 50% RH
Elongation:	160%, Nominal ASTM D412
Tensile Strength:	125 PSI, Nominal ASTM D412
Cure Time:	24 to 48 hours @ 77°F and 50% Relative Humidity
Application Temp.:	40°F to 120°F.
Service Temp (Cured Film):	-40°F to 160°F
VOC Content:	<30 g/L max.
NFPA 285 Fire-Rated Assembly	

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CHEMICAL RESISTANCE:

Solvents:	Not Resistant
Water:	High Resistance
Acids - Mild Acid Solutions:	Mild Resistance
Bases - Mild Base Solutions:	Mild Resistance
Salt:	High Resistance

SUBSTRATE & ACCESSORY COMPATIBILITY:

Concrete, Wallboard, Stucco, Wood, Metal	
OSB, Cementitious Boards, Sheetrock,	
Brick, Gypsum Board, All Standard	
Roofing Materials Except Bitumen:	Highly Compatible
Polystyrene Insulation:	Mildly Compatible
Silicone, Tyvec®, Polyethylene:	Not Compatible
Bitumen:	Mildly Compatible
Cured Water-Based Sealants, Caulks & Coatings:	Highly Compatible
Cured Moisture Cured Sealants, Caulks & Coatings:	Highly Compatible
Cured Solvent-Based Primer, Coatings & Sealants:	Highly Compatible

CAUTION: PROTECT FROM FREEZING. Product must be protected from damage during construction. Do not apply to wet surfaces, except damp concrete. Coating not designed for permanent exposure to weather. Protect as soon as possible. However, coating may be exposed up to 9 months, if necessary.

323 K-NRG Gap Seal FR shall not be applied when ambient (air) and substrate temperatures are below 40°F (5°C). The product should not be applied if it is raining, or rain is forecasted within 24 hours after application. Product should not be applied if it is expected that the ambient temperature will fall below 32°F within 48 hours. Ensure newly coated CMU walls are protected at the roof line to prevent water infiltration into the wall cavity.

Close container when not in use. Avoid prolonged contact with skin. Use proper protective equipment during application. Avoid breathing of vapors as it may cause respiratory tract irritation. If swallowed, seek medical attention immediately. In case of eye contact, open eyelids wide and flush immediately with plenty of water for at least 15 minutes. Dispose of in an environmentally safe manner. Cover air intakes during application and while drying. Keep out of reach of children. For exterior use only.

PACKAGING: Available in 3.5-gallon buckets, 30-oz. cartridges and 55-gallon drums.

If further information is needed, contact KARNAK Technical services at 800-526-4236.