



H.E.R. FABRIC-LESS FLASHING GRADE POLYURETHANE ROOF SEALANT

TECHNICAL DATA SHEET

PRODUCT DESCRIPTION:

ERsystems® H.E.R. is a flashing grade single component moisture-cure polyurethane roof sealant. H.E.R. is a tough, seamless elastomeric roofing membrane that has excellent adhesion to a wide variety of substrates.

TYPICAL PROPERTIES:

Property	Typical Value
Percent Solid:	80%
Viscosity:	120,000-160,000 cps
Ultimate Elongation: ASTM D412	400%
Ultimate Tensile Strength: ASTM D412	300-350 psi
Permeability: ASTM E96	1.2 perms (at 30 dry mils.)
Weight/Gallon	7.4 lbs.
VOC Content	186.9 g/l EPA Method 24
Shore A Hardness: ASTM D2240	40
Low Temp Flexibility: ASTM D412	Pass at -60° F
Flash Point	T.C.C. 109.9° F (43.3° C)
Resistance to Weathering: ASTM D822	Excellent
Chemical Resistance	Excellent
** The shelf life for an unopened container stored at temperatures between 60°F (15.6°C) and 95°F (35°C) is 12 months from date of manufacture. Store out of direct sunlight in a cool, well-ventilated area. Avoid storing container directly on the floor or against an outside wall	

TYPICAL USES:

Uses include waterproofing metal roof seams and fasteners and flashing around roof penetrations where roof movement causes cracking and moisture penetration. H.E.R. has also found extensive use in sealing metal gutters. H.E.R. will also seal polyurethane foam, wood and concrete.

PACKAGING:

- Packaging is standard in 10.1 oz. cartridges, 20 oz. sausages, 1 gallon, 2.5 gallon and 5 gallon pails.

PACKAGING:

- Standard color available is aluminum gray.

APPLICATION EQUIPMENT:

H.E.R. can be applied by brush, roller and may be pumped by conventional airless spray equipment.

- **Brush or Roller:** Recommended for flashing. Use a coarse, short bristle brush.

Airless Spray Equipment: H.E.R. can be pumped with the following equipment, and extruded into place on the metal roof. The pump must be capable of producing a material output of 2 gallons per minute at 3,000 psi. Ability to pump H.E.R. is typically related to the inlet plumbing to the pump. An unrestricted 1 1/2" inlet works well. To reduce the pressure required at the pump 3/4" high pressure hoses perform best. To extrude the H.E.R., the gun is either removed or fitted with a wand without a tip and potentially with a flanged end to deliver a bead 3/4" to 1" wide.

APPLICATION:

Over Metal:

H.E.R. can be pumped with the following equipment, and extruded into place on the metal roof. The pump must be capable of producing a material output of 2 gallons per minute at 3,000 psi. Ability to pump H.E.R. is typically related to the inlet plumbing to the pump. An unrestricted 1 1/2" inlet works well. To reduce the pressure required at the pump 3/4" high pressure hoses perform best. To extrude the H.E.R., the gun is either removed or fitted with a wand without a tip and potentially with a flanged end to deliver a bead 3/4" to 1" wide.

H.E.R. may be used to seal around all roof penetrations, skylights, gutters, valleys, etc. Brush 60 mils of the sealer in a stripe 3" to 4" wide in each dimension around the penetration. If gaps exist or excessive roof movement is noted around penetrations, seams or fasteners the H.E.R. may be reinforced with Polyester fabric embedded into the coating.

Two coats of H.E.R. may be required in some areas to achieve the 60 mils film thickness.

- Metal surface must be dry and free of frost or dew. Best application will be achieved when H.E.R. is at least 60° F (15.6°C) and the surface to which it is applied is 40° F (4.45°C) or higher and rising in temperature.
- After the initial cure (approximately 12 - 24 hours at 75°F (23.9°C) and 45% R.H.) is complete, all seams should be inspected for continuity of the coating membrane. H.E.R. may then be finish coated with **Acrylic 1000 Plus, Polyurethane 300 urethane system** or another approved finish. Weather related conditions such as frost, dew, mist, condensation, humidity, and temperature must be taken into consideration prior to coating. Temperature should be

above 40°F (4.45°C), more than 5°F above the dew point and rising, for best application results.

- Do not apply over Silicone coatings or silicone caulks. Do not apply over fresh asphalt coatings, coal tar coatings or plastic roof cement.

Over Other Substrates:

- **H.E.R.** may be used for sealing substrates such as polyurethane foam, concrete, plywood, aged BUR, aged Modified Bitumen single-ply, etc. **H.E.R.** is typically used to seal cracks, penetrations and other points where a high solids tough coating is required.

TEMPERATURE CONSTRAINTS:

Cold temperatures influence viscosity and pumping/handling characteristics of **H.E.R.**. Heat increases and cold decreases the flow of **H.E.R.**. When temperatures fall below 60°F (15.6°C), **H.E.R.** can best be applied after storage at 70°F for a minimum of 48 hours prior to usage. For ease of application, material temperature should be 60° F (15.6°C) minimum. If **H.E.R.** is to be pumped at temperatures below 60°F (15.6°C) insulated or heated hoses may be required. For additional cold weather application techniques and information, consult ITWPSNA. The service temperature range is -65°F (-53.9°C) to 180°F (82.2°C). The substrate temperature range for application is 40°F (4.45°C) – 120° F (48.9°C).

LIMITATION:

H.E.R. cures by reacting with air moisture. Partially used containers should not be left open and exposed to the air. Curing in the once opened container can be slowed by placing plastic wrap directly over the surface of the coating and tightly resealing the container. If a cured film has formed on the top of the product it should be carefully cut away prior to mixing the remainder of the product in the container. The surface film formation does not affect the performance of the remaining product.

CLEAN UP:

Upon completion of the application all tools, hoses, and equipment must be cleaned with acetone.

CAUTION!!!

H.E.R. contains a polyurethane resin and an aromatic solvent blend. If swallowed, do not induce vomiting. If splashed in eyes, flush with clean water for a minimum of 15 minutes. In either case, call physician immediately. If splashed on skin, wash thoroughly with soap and water. Avoid breathing vapors and spray mists. Use only with adequate ventilation. Proper eye protection and protective clothing for the skin should be worn. May produce severe dermatitis and bronchial spasms. Keep away from heat, sparks and open flames. Close container after use. Keep out of reach of children. For professional use only.

The flow of material through pump and system could create static electricity. When pumping flammable materials, all equipment must be properly grounded to prevent static discharge and sparking, which could cause fire or explosions. Use only conductive or grounded air and material hoses, and be sure that you compressor and pump are properly grounded per manufacturer's recommendations. Do not cut or weld on or near empty containers.

PRIOR TO USE OF THIS MATERIAL,
READ ALL APPROPRIATE SAFETY DATA SHEETS

EXCLUSION OF WARRANTIES:

AS TO THE HEREIN DESCRIBED MATERIALS, ITW POLYMERS SEALANTS NORTH AMERICA, INC. MAKES NO WARRANTIES WHETHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SINCE THE USE OF THE HEREIN DESCRIBED MATERIALS INVOLVES MANY VARIABLES IN METHODS OF APPLICATION, HANDLING AND/OR USE, THE USER IN ACCEPTING AND USING THESE MATERIALS ASSUMES ALL RESPONSIBILITY FOR THE END RESULT. THE PURCHASE OF THIS ITW POLYMERS SEALANTS NORTH AMERICA, INC. PRODUCT IS SUBJECT TO THE TERMS AND CONDITIONS OF AN "AS IS" SALE, AND IF THE PRODUCT IS PROVED TO BE DEFECTIVE, THE EXCLUSIVE REMEDY, AT ITW POLYMERS SEALANTS NORTH AMERICA, INC.'S OPTION, SHALL BE TO REPLACE THE DEFECTIVE ITW POLYMERS SEALANTS NORTH AMERICA, INC. PRODUCT. ITW POLYMERS SEALANTS NORTH AMERICA, INC. SHALL NOT OTHERWISE BE LIABLE FOR LOSS OF DAMAGES, WHETHER DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL, REGARDLESS OF THE LEGAL THEORY ASSERTED, INCLUDING NEGLIGENCE, WARRANTY OR STRICT LIABILITY.

Complete technical information is available from
ITW Polymers Sealants North America, Inc.