

DESCRIPTION

Z-7 HARDCOAT is a high-modulus thermoset spray applied plural-component aromatic polyurea elastomer used as an abrasion, impact and moisture resistant coating for multiple substrates. This rapid curing, 1:1 volumetric ratio system is designed to be sprayed with high pressure plural component spray equipment. Z-7 HARDCOAT delivers superior stiffness and corrosion resistance. It forms a seamless, monolithic membrane with water and chemical resistance. Thickness of the lining will vary depending on the application, typically from a minimum of 30 mils up to unlimited thickness.

TYPICAL APPLICATIONS

- Hard Coat" for EPS, PU and other foams.
- Pipe lining interior and exterior.
- Saltwater corrosion such as protection for oil well platforms.
- Coating for wooden substrates.
- Various structural applications.

KEY FEATURES

- Robust application window with ability to spray at low temperatures -20° F (-29° C) and high humidity.
- Fast-set: handle within 60 seconds or less.
- Temperature stability to -40° to 230° F (-40° to 110° C) with intermittent temperatures to 300° F (148° C).
- Excellent leveling properties, sprays out with a smooth, glossy surface to reduce filling and sanding.



Z-7 HARDCOAT Over Concrete



Z-7 HARDCOAT Pipeline Application



Z-7 HARDCOAT Over EPS Foam

TYPICAL PHYSICAL PROPERTIES

(For components)

	COMPONENT A	COMPONENT B
Solids by weight and volume	100%	100%
Viscosity at 77°F (25°C)	550 cps	650 cps
Mixing ratio by weight	110	100
Mixing ratio by volume	1	1
Shelf Life - Unopened Containers	12 months	12 months

(For cured material)

	TEST METHOD	RESULTS
Shore D hardness	ASTM D-2240	70 ± 5
Tensile strength	ASTM D-412	3100 – 3500 psi
Elongation	ASTM D-412	75 – 85 %
Tear, Die C	ASTM D-624	450 pli
Impact Resistance	ASTM D-256	160 lbs
Mandrel Bend, 180°, 1 inch mandrel	ASTM D-522	Pass
Taber Abrasion Resistance (mg of loss/1000 cycles)	ASTM D-4060	48
CS17 Wheel; 1000 grams weight		
Coefficient of Friction on Steel:		
-Static	ASTM D-1894	.35
-Kinetic	ASTM D-1894	.5

PROCESS SPECIFICATIONS

Equipment pre-heater temperature		
Component A	160°F	71°C
Component B	160°F	71°C
Hose temperature	160°F	71°C
Spray pressure	2000 PSI	138 Bar
Gel time at equipment temperature	3 – 4 seconds	
Tack free time	10 – 14 seconds	
Recoat	Max 4 hrs	

MIXING

Z-7 HARDCOAT may not be diluted under any circumstances.

Mix Z-7 HARDCOAT Side-B (Polyol) Base material with a mechanical drum mixer until a homogeneous mixture and color is obtained. Do not allow air to be incorporated into the product. Total suspension must be achieved.

Z-7 HARDCOAT Side-A (Isocyanate) requires no mixing.

COVERAGE

Due to its fast set nature Z-7 HARDCOAT may be applied at any rate to achieve desired thickness. Theoretical coverage per gallon is 1600 sq. ft. at 1 mil. Practical coverage @ 100 mils = 50 ft²/ 3 gal.

Dry film thickness range varies based on application, typically a minimum of 1/16" (62.5 mils; 1.5mm) up to unlimited thickness.

HANDLING PROCEDURES

During Processing, both A & B drums should be fitted with desiccant dryer system. Keep containers closed, when possible, to exclude any atmospheric moisture. Blanket both components with dry nitrogen when storing drums that have been opened.

STORAGE

Z-7 HARDCOAT components should be stored in sealed containers at 60 – 90° F (15 – 32° C) in a dry area. Avoid exposure to freezing temperatures. Store on wooden pallets to avoid direct contact with the ground.

PACKAGING

A set of Z-7 HARDCOAT consists of one (1) 55 gallon (208 L) drum of 'A' component and one (1) 55 gallon (208 L) drum of 'B' component. Net weight per set is 910 pounds (412.7 kg).

COLOR OPTIONS

Colors - Black, Industrial Tan, Industrial Grey, Industrial Brown, Graphite, Spice Brown, Red, Indigo Blue, Emerald Green or unpigmented (natural). Custom colors are also available by special order. This is an Aromatic product, colors may change with UV exposure. Use of a UV Topcoat provides tough, light stable, protection from color change and dulling of the surface and allows custom color matching, even metallic colors.

PRECAUTIONS

Protect from exposure to moisture. Water will cause the "A" component (ISO) to generate carbon dioxide with resulting high pressure in closed containers.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your Pinnacle representative or visit our website for current technical data and instructions.

TECHNICAL SUPPORT

We have a dedicated technical support team offering knowledgeable support for everything from preventative maintenance, equipment calibration and servicing through to coating and foam application advice. If you have any questions regarding the use of this product please call us toll free at 1-800-901-0088 or email us info@pinnaclewest.net.

LIMITED WARRANTY

Pinnacle West Enterprises Inc. warrants its products to be free of manufacturing defects and that they will meet Pinnacle West Enterprises Inc. current published physical properties when properly installed according to Pinnacle West Enterprises Inc. guide specifications and product data sheets over a sound, properly prepared substrate. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. There are no other warranties by Pinnacle West Enterprises Inc. of any nature whatsoever expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Pinnacle West Enterprises Inc. shall not be liable for damages of any sort, including remote or consequential damages resulting from any claimed breach of any warranty whether expressed or implied. Pinnacle West Enterprises Inc. shall not be responsible for use of this product in a manner to infringe on any patent held by others. In addition, no warranty or guarantee is being issued with respect to appearance, color, fading, chalking, staining, shrinkage, peeling, normal wear and tear or improper application by the applicator. Damage caused by abuse, neglect and lack of proper maintenance, acts of nature and/or physical movement of the substrate or structural defects are also excluded from the limited warranty. Pinnacle West Enterprises Inc. reserves the right to conduct performance tests on any material claimed to be defective prior to any repairs by owner, general contractor, or applicator.

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