



Foam & Coating Systems, Inc.

OR 711

Urethane base coat/primer

Description

OR 711 100% solids are a high performance, two-component urethane primer/base coat system designed for use on concrete, wood and blasted steel. Bubble-free films can be produced 50 mils (1.3mm) thick. Working times are adjustable by selective additions to the resin blend. It also exhibits a low sensitivity to substrate moisture, leaving only minimal bubbling when applied to damp surfaces.

Applications

Concrete and wood primer for polyurethane and polyuria spray coatings
Industrial applications, roofing, decking, truck bed liners, pipeline and tank coatings

Advantages

Penetrates and seals the surface, leaving a smooth, pinhole and bubble-free coating
Excellent adhesion to a variety of substrates
Good physical properties
Outstanding stability at low temperatures

Versatility

Working at different volume ratios offers a variety of stiffness and flexibility
Primer may be applied on damp surfaces with no bubbles or foaming
Flexibility to adjust the cure profile to match customer processes with the adjustment of catalyst
Long work times (up to 45 minutes)

Surface Preparation

General: Surface must be properly prepared prior to application. This could entail shot blasting or grinding, scrubbing, high pressure detergent washing, steam cleaning or solvent wiping of the surface to remove dirt, oil, grease pollutants and other contaminants. Allow the surface to thoroughly dry. Once dry, remove loose or excess mortar or other material that may work to impair adhesion.

Mixing/Stirring

To prepare the system for application, mix the appropriate volume of materials together for approximately 2(two) minutes.
At this point, a cloudy liquid will result. Shortly thereafter, a slight exothermic will become noticeable and the mixture will increase in viscosity. The actual working time will depend on the resin blend selected, the mix ratio and the presence of any accelerator.

Application

Material can be applied by high- or low-pressure spray equipment. Ensure product is applied in an even and uniform manner, making sure recesses and edges are thoroughly coated. Please call Oak Ridge Foam & Coating Systems, Inc, for special instructions spraying the OR 711 with a spray equipment.

Technical Data

Finish:	Gloss
Color:	Clear Amber
Resin Type:	Urethane
Theoretical DFT Coverage (per mil) *	1500 ² / gal
Recommended DFT thickness, (per mil) **	5-10 mils
Mix Ratio:	1A:2B by vol
May adjust for cure time	
Pot Life @ 25°C:	<25 minutes
Drying Time *** see below	
Tack Free	1-4 hours
Re-coat Time, Min.	1 hour
Re-coat Time, Max	12 hours
Dry Film Properties:	
Tensile Strength, psi	2,400
Elongation, %	145
Modulus of Elasticity	47,900 psi
Tear Strength, pli	350
Polyurea Top Coat Adhesion (Elcometer)	psi>500
Concrete Pull Test	>450 psi

*Coverage rate is estimated based upon product composition and takes no allowance for material loss during application. Actual coverage may vary depending on applicator and surface porosity and texture.

**Optimal DFT thickness will depend on condition and surface of the substrate.

***Drying time is listed at 75°F and 50% relative humidity. Drying time will vary with surface temperature, air circulation, humidity and film thickness.

Typical Coverage: 80 Sq. Ft. per gallon @ 20 mils

Handling and storage

The reaction of isocyanates Part A with water, leads to the formation of insoluble urea's and carbon dioxide gas, which gas result in pressure buildup inside closed containers. Therefore, extreme care must be taken to assure containers used remain dry. Containers that have become contaminated with moisture should not be subsequently sealed; otherwise, a hazardous increase in pressure may result.

OR 711: Is resistant to short-term exposure to low temperatures. However, low temperatures will result in increased viscosity, which makes handling more difficult. It is not advisable to store OR 711 for long periods below 32°F (0°C). The recommended storage temperature for OR 711 is 60°-95°F. A small number of insoluble solids in the A-Side liquid product does not usually cause difficulties in handling or product performance. However, if necessary, the liquid product may be filtered through a suitable in-line filter.

WARRANTY

The technical data and any other printed information furnished by Oak Ridge are true and accurate to the best of our knowledge. OR 711 conforms to in house quality control procedures and should be considered free of defects. The data provided is believed to be reliable and is offered solely for evaluation. The use of this product is beyond the control of the seller, therefore the buyer assumes all risks of use and handling, whether done in a matter that is in accordance with the provided posted directions or not. Oak Ridge makes no warranty, expressed or implied of its products and shall not be liable for indirect or consequential damage in any event. 11/20

Manufacturer of High-Performance Foam/Coatings & Application Equipment

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