

ORPR811

Product Description

ORPR811 is a VOC compliant primer, high in chemical and abrasion resistance for a variety of substrates. ORPR811 has been designed to function as a high performance, one component, and moisture cure urethane primer system, designed for use on steel, aluminum, and stainless steel, galvanized metal, wood and concrete. Its low viscosity allows it to penetrate porous surfaces, leaving a bubble-free coating. Working time is adjustable by selective addition of catalyst. It also exhibits a low sensitivity to substrate moisture, leaving only minimal bubbling when applied to damp surfaces.

Applications

ORPR811 is an excellent coating choice for industrial high traffic aisle ways or work cells and warehousing sealer. ORPR811 can also be used as an interior coating for wood flooring or furniture. Also, used for roofing, decking, truck bed liners, pipeline, and tank coatings.

Storage Stability

One year in unopened original containers at 40-90° F. Normally, containers should be used within one week after opening unless resealed with nitrogen blanket.

Advantages

VOC exempt
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

General Information

Mix ratio	Single component
Solids by volume	100%
VOC	-0-
Coverage	1600sq ft per gallon @ 1 mil DFT

Recommend Thickness 1-3 mil DFT(Do Not Exceed 2-3 mils)

Packaging

<u>Product Code</u>	<u>Container size</u>	<u>Product quantity</u>
ORPR811-1	1 gallon	1 gallon
ORPR811-2	5 gallon pail	5 gallons
ORPR811-3	55 gallon drum	55 gallons

Surface Preparation

1. Previously painted surfaces: Solvent clean to remove all oils, grease and wax. Remove all rust and damaged paint. Feather edge the repair areas. Fill and putty as required. Sand all areas to be painted with 120-180 grit wet or sandpaper. Primer with ORPR811.
2. Stainless steel: Solvent wipe, scuff sand or abrasive blast. Prime with ORPR811.
3. Steel: Remove all rust, mill scale, and foreign matter. Solvent wipe to remove all oils and grease. Sand blasting is best- if possible. Prime with ORPR811.
4. Aluminum: Solvent clean to remove all oil and grease. Sand surface with 120-180 grit sandpaper. Prime with ORPR811.
5. Concrete: Laitance, curing compounds, concrete contaminants must be removed. Sand-blast or acid etch areas to be coated. Prime with ORPR811.

Mixing

Stir contents of container prior to application.
*Product does not require catalyzation. *Refer to table below.*
Add 10% to 30% MEK for best adhesion results and coverage. This can be added before packaging or at job site.

Application Instructions

1. Apply coating as uniformly as possible with a ¼" nap roller.
2. Avoid excessive back rolling and cross rolling, this will lessen the chance of bubbling.
3. Spray apply.

Limitations

This product is not recommended for immersion service, unless used with a topcoat.
Do not apply this product at ambient or floor temperature below 15°F or over 90°F or if the relative humidity is above 95%.

*Pot Life

Temperature	70° F	100°F
Using accelerator	Dry to touch 1-2 hours	1 hour
Using accelerator	Dry to handle 3-4 hours	2 hours
Using accelerator	Full cure 4 days	

Without accelerator two times longer cure time of the above times.

Top coat @ tack free to 8 hrs. After 8 hrs MEK wipe up to 48 hours. After 48 hours MEK wipe & re-prime.

Clean up

To clean up, use Methyl Ethyl Ketone (MEK).

Typical Physical Properties

	<u>Units</u>	<u>Results</u>
Color	Amber	
Tensile strength	psi	3300
Elongation	pli	85%
Tear strength	pli	440
Polyurea topcoat adhesion	psi	>500
Typical film thickness	Mils	1-3
Minimum re-coat time	hours	4
Isocyanate equivalent weight	350.0	
NCO content, %	12.0	
Viscosity at 77° F (25°C)	425	
Specific gravity at 77°F (25°C)	1.16	
Flash Point (Cleveland open cup)	>110/>230	
Vapor pressure at 77°F (25°C) (mm)	<10 ⁻⁵	
Functionality	2.40	
Recommend storage temperature	60-100°F (16-38°C)	
Shelf life	12 months	
Viscosity	700-800 cps @ 23C	
Coverage	300 sq ft/gallon	
Solids by weight	100%	
Abrasion resistance	ASTM D-4060	20 mg max weight loss
Impact resistance	ASTM D-2794 in lb direct	160" lb direct; 160/5/0



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Handling and storage

The reaction of isocyanates with water leads to the formation of insoluble areas and carbon dioxide gas which can result in pressure buildup inside closed containers. Therefore, extreme care must be taken to ensure containers used for ORPR811 remain dry. Containers that have become contaminated with moisture should not be subsequently sealed; otherwise a hazardous increase in pressure may result. Freshly manufactured ORPR811 is an amber liquid. Sedimentation is usually due to contamination from atmospheric moisture or to dimer formation. Reaction from atmospheric moisture can be prevented by storing ORPR811 in carefully sealed containers or under a dry nitrogen atmosphere during handling ORPR811 must be carefully resealed after each sampling. A small amount of finely divided insoluble solid in the product does not usually cause difficulties in handling or product performance. However, if necessary, the liquid product may be filtered through a suitable inline filter. It is suggested that the filter vessel be of stainless steel with a suitable polypropylene filter bag. The lines should be heated and blown clear with nitrogen after use.

Warranty

The technical data and other printed information furnished by Oak Ridge are true and accurate to the best of hardeners surface and other our knowledge. Oak Ridge conforms to in house quality control procedures and is 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.
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