



Foam & Coating Systems, Inc.

# OR 811

## Product Description

OR 811 is a single component polyurea primer that contains a non – HAP's solvent. OR 811 exhibits high chemical and abrasion resistance for a variety of substrates such as steel, aluminum, stainless steel, galvanized metal, wood, and concrete. Its low viscosity allows it to penetrate porous surfaces, leaving a bubble-free coating. It also exhibits a low sensitivity to substrate moisture, leaving only minimal bubbling when applied to damp surfaces.

## Applications

In addition to being used as a primer for enhanced adhesion of other coatings OR 811 is an excellent coating choice for industrial high traffic aisle ways, work cells and warehousing sealer. OR 811 can also be used as an interior coating for wood flooring, furniture, roofing, decking, truck bed liners, pipeline, and tank coatings.

## 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

## Application Instructions

OR 811 can be applied using a ¼" nap roller. Apply as uniformly as possible avoiding excessive back rolling and cross rolling will lessen the chance of bubbling.

OR 811 can be applied using single component spray equipment. Consult with your technical representative for specific equipment requirements.

## Thinning

Thinning is not recommended.

## Mixing

Mixing is not required unless using a pigmented version.

## 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 OR 811.
2. Stainless steel: Solvent wipe, scuff sand or abrasive blast. Prime with OR 811.
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 OR 811.
4. Aluminum: Solvent clean to remove all oil and grease. Sand surface with 120-180 grit sandpaper. Prime with OR 811.
5. Concrete: Laitance, curing compounds, concrete contaminants must be removed. Sand-blast or acid etch areas to be coated. Prime with OR 811.

## Coverage

1 Gallon covers 100 ft<sup>2</sup> @ 16 mils wet/ 10.24mils dry  
On porous surfaces application rate should be 300-500ft<sup>2</sup> per gallon.  
On smooth surfaces application rate should be 600-800ft<sup>2</sup> per gallon.

## 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.

## Clean up

Before product has cured remove unwanted OR 811 with Methyl Ethyl Ketone (MEK).

## Typical Physical Properties

	<u>Units</u>	<u>Results</u>
Tensile strength	Psi	3300
Elongation	pli	85%
Tear strength	pli	440
Polyurea topcoat adhesion	psi	>500
Adhesion to concrete	Elcometer	550 psi
Typical film thickness	Mils	3-8
Minimum re-coat time	hours	4
Viscosity at 77° F (25°C)	cps	220
Specific gravity at 77°F (25°C)	g/cm <sup>2</sup>	1.19
Flash Point (Cleveland open cup)		>110/>230
Vapor pressure at 77°F (25°C) (mm)		<10 <sup>-5</sup>
Recommend storage temperature	60-100°F (16-38°C)	
Shelf life	Un-opened	12 months
Solids by weight		60%
Solids by volume		64%
Abrasion resistance	ASTM D-4060	20 mg max weight loss

## Color

OR 811 is supplied standard unpigmented and appears amber in color. OR 811 may be supplied pigmented upon request.

## Packaging supplied in

1 Gallon Can, 5 Gallon Pail, 55 Gallon Drum

## 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%.

## 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 OR 811 remain dry. Containers that have become contaminated with moisture should not be subsequently sealed; otherwise, a hazardous increase in pressure may result. Freshly manufactured OR 811 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 OR 811 in carefully sealed containers or under a dry nitrogen atmosphere during handling OR 811 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.

11/01/2020

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