

# HYDROEDGE 440

## WATERBASE SELF-SEAL TOPCOAT



### DESCRIPTION

HydroEdge 440 Clear is a high-quality self-seal clear topcoat for interior wood products. It is a blend of Urethane and Acrylic resin systems providing a very durable surface with quick dry times. HydroEdge 440 is developed for use on interior wood as a self-sealing system or HydroSand 493 waterborne sealer. This waterborne topcoat has excellent clarity with good build characteristics and good film hardness.



### PRODUCT DATA

<b>Color</b>	Clear	<b>VOC less exempts</b>	28.33 g/L	0.24 lb/gal
<b>Solids % by Vol</b>	20% ± 2%	<b>VOC actual</b>	51.69 g/L	0.43 lb/gal
<b>Solids %by Wt</b>	28% ± 2%	<b>Photochemical reactive</b>	No	
<b>Density</b>	1.04 ± 0.02	<b>Flash Point (PM/CC)</b>	N/A	
<b>Viscosity 23°C/73°F (FORD 4)</b>	95-100	<b>Shelf life</b>	12 months (at 15-25°C/59-77°F)	
<b>Gloss( On Black glass @60°)</b>	10-30-90	<b>Theo-coverage @1 mil dry</b>	320-330 Sq.Ft/gal	6 m <sup>2</sup> /L

### PREPARATION/APPLICATION

<b>Working Temp</b>	>18°C/65°F surface, coating and air
<b>Catalyzation</b>	Optional for optimal mechanical and chemical resistance, 5 % by volume using CROSSLINKER CW 33
<b>Pot life</b>	N/A
<b>Reducer</b>	Product is normally applied without reduction. If reduction is needed to optimize application, reduce 5% by volume with warm water.
<b>Application</b>	<ul style="list-style-type: none"> <li>◆ Stain- apply LORCHEM Labe Stain and allow to dry</li> <li>◆ Seal- Apply HYDROEDGE 440 as sealer or other recommended LORCHEM sealer at 4.0 – 6.0 wet mils.</li> <li>◆ Air dry thoroughly. Sand with 240 grit sandpaper and remove all sanding dust. Topcoat within 8 hours of sanding</li> <li>◆ Topcoat – apply HYDROEDGE 440.at 4.0 - 6.0 mils wet. Apply an additional topcoat for greater build. Allow 1 hour drying between coats.</li> </ul>
<b>Surface Preparation</b>	Wood surface must be dry and finish sanded with 180 grit sandpaper Substrate should be clean and free of grease and oil to ensure optimum adhesion and coating performance properties. Moisture content of the wood should be between 6%-8%.
<b>Use Directions</b>	For interior use only. Catalyze, adjust viscosity and stir thoroughly before application to avoid variations application. Dry time can be directly impacted by many factors, including film thickness. Users are urged to test the system under shop conditions.
<b>App equip.</b>	Conventional & HVLP Siphon Feed, Pressure Pot Systems and Airless/Air Assist Equipment.
<b>Tinting</b>	Can be tinted up to 10% maximum with AquaTint colorants 100.
<b>Cleanup</b>	Clean tools/equipment immediately after use with water.

### DRYING TIMES

Method	Drying temperature.	Drying Time (@ 50%RH and thickness @ 4 mil WET)			
Air Drying	23°C/74°F	<b>Dust free time</b>	15 minutes	<b>Dry to sand</b>	30 minutes
		<b>Dry to touch</b>	25 minutes	<b>Dry to recoat</b>	1 hour
		<b>Dry to Handle</b>	30 minutes	<b>Dry to stack</b>	8-10 hours
Force dry	45 °C/110°F	30 minutes			

**Note:** Dry times are greatly affected by film build, porosity of substrate, air movement as well as heat and humidity. Minimum curing temperatures of 23°C/74°F must be maintained throughout curing cycle to achieve the film integrity as stated in product features.

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**APPLICATION RECOMMENDATIONS**

**APPLICATION EQUIPMENT SETTINGS**

Method of Application	Air Pressure (PSI)	Fluid Pressure (PSI)	TIP size (mm / inch)	Dilution %	Thickness Film (Mils)
Conventional spray	40-60	-	2-2.5/0,078-0.098	10-20	3-5
Airmix Spray	15-30	1100-1600	9-11/0,35-0.43	-	3-5
Airless	-	1700-2200	9-11/0,35-0.43	-	3-5

The use of pre-atomizers and pre-heaters, to bring the temperature to 30 – 40 °C, ensures a correct application regardless the room temperature. The drying process should be carried out in environments with adequate air ventilation (the recycle of air in the drying room should be carried out every 15-20 minutes).

**Note:** All measurements and application equipment settings are based on application at a temperature of 77°F. Viscosity will vary depending on the temperature of the liquid. The above-mentioned application equipment recommendations are guidelines only. The noted settings are starting point recommendations and that adjustment to the settings and equipment may be needed to obtain the desired results. Please refer to your specific equipment manufacturer's recommendations for equipment set-up.

**SPECIFICATIONS**

- For interior use only.
- Must be agitated before and during using. Avoid vigorous agitation which may cause foaming.
- Use stainless steel spray equipment. Tank, piping, and containers should be lined steel or plastic.
- Excessive wet film thickness of more than 4.0 mils wet may sag on vertical applications.
- Very low temperature application ( less than 12°C) may cause poor mechanical and chemical film properties.
- Crosslinker CW 33 is an aziridine product. Thoroughly review product label and Safety Data Sheet (SDS) for safety information and cautions prior to using these products.
- When finishing Redwood, Red or White Oak, Pine and Cedar wood with water based finishes, tannins may be extracted from the wood by the water and cause staining and/or discoloration of the stain, sealer, and/or topcoat. This tannin bleed is most evident with white or pickled stains and clear topcoats. Users are urged to thoroughly test the system under shop conditions. Do not expose to freezing temperatures. The liquid coating will not handle any freeze/thaw cycles.
- Natural Finished Woods (unstained) will change color on aging and exposure to light. This is a natural phenomenon. Clear finishes will not prevent the wood from changing color.
- Apply over recommended LORCHEM sealer. Please contact your LORCHEM representative for system recommendations.
- Total film thickness of systems must not exceed 7.0 mils dry film because heavier films may show cracking tendencies.
- Do not expose to freezing temperatures. The liquid coating will not handle any freeze/thaw cycles.

**CAUTIONS**

**TESTING**

Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion, compatibility and performance prior to full scale application.

**THESE PRODUCT ARE DESIGNED FOR INDUSTRIAL SHOP APPLICATION AND PROFESSIONAL USE ONLY**

Thoroughly review Safety Data Sheet (SDS) for safety information and cautions prior to using this product. Please direct any questions or comments to your local representative.

**PDS**

Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling ,preparation and application which are not known or under our control, LORCHEM cannot make any warranties related to the product or the performance of the product. Moreover, we underline the fact that in industrial applications, a tolerance of 5% in the overall results is considered normal and is not caused by the quality of the product.

**CONTACT**

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