



Evolution Yacht Topcoat Technical Data Sheet (TDS)

Product Description

Evolution Yacht Topcoat is an exceptional two component linear aliphatic polyurethane coating that provides a brilliant gloss and depth of image. It is designed to perform under extreme conditions and will maintain and preserve the value of your asset.

Product features:

- High gloss and color retention
- Superior DOI – Depth of Image
- Outstanding resistance to chemicals and impact
- Thousands of color choices

Not for use below the waterline.

Recommended Uses

Evolution Yacht Topcoat is suitable for all Marine Applications where a high-performance polyester polyurethane is required. This product is intended for professional use.

Mix Ratio

**1 part by volume of component A [MCTXXXXX]
1 part by volume of component B [MTB0310] Low VOC B**

The optimal finish is obtained when RH is 80% or less.
Thin as required using Endura EX-2C Slo Thinner [FTH0090] or Medium Topcoat Reducer [FTH0014].
For extreme weather conditions (85% RH +) thin 30%.

Other Available B components:

[MTB0300] Marine Evolution HAT B for higher ambient temperatures and humidity.
[MTB0320] Marine Evo Striping B for speed critical multiple striping applications
[MTB0330] Marine Evolution B for general use

Product Characteristics

Gloss: ASTM D2457	High: 90+ GU at 60°
Slight gloss variations will occur depending on color.	
Volume Solids Mixed:(Unreduced) White	46% ± 4%
Volume solids will vary by color	
Pot Life: (77°F (25°C) and 50% RH)	8-10 Hours
Pot life is reduced when using Supercatalyst II [ITB0800]	
VOC Mixed (Unreduced): EPA Method 24: Typical using Activator Marine Evo Low VOC Topcoat B [MTB0310] (1:1)	275 g/l (2.292 lb/gal)
VOC content will vary with each color and choice of component B. Contact your Endura representative for exact VOC of each individual color	
Shelf Life:	2 years unopened
Container Sizes:	Pints, Quarts, Gallons

Surface Preparation

Evolution Yacht Topcoat can be applied over all recommended Endura Marine Epoxy and Urethane primers and sealers.

If the primer topcoat window has been surpassed, the primer should be sanded with 240 – 280 grit sandpaper or 3M™ red abrasive pads to achieve inter-coat adhesion. All sanding dust must be blown off prior to application of the topcoat.

Application

Evolution Yacht Topcoat can be applied using most spray-painting systems.

The Ultimate Finish can be achieved with a 3 coat application with a 30 % reduction

Ensure that any solvent absorbent primer surfacers are properly sealed with a primer sealer prior to application of the topcoat.



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Solid Colors:

Apply two single wet coats. It is recommended that a thinner first coat be applied at 1.5 – 2.0 mils wet, followed by a second wet coat of 2.0 - 3.5 mils wet. Recommended 30 – 40 minutes between coats.

Metallic Colors:

Three coats are recommended for metallic colors. Apply two medium coats. Recommended 30-40 minutes flash off time between coats. Immediately following the second wet coat apply a third “mist coat” to achieve a uniform finish. A high-hide version of any metallic color can be used and then clear coated for superior gloss retention and UV stability.

Be aware when more than three coats of paint are applied in any given 12-hour shift (including primer, topcoats, and clear coat). If more than 3 coats have been applied, wait 10-12 hours is recommended to allow for proper solvent evaporation.

After 24 hours Evolution Topcoat must be sanded prior to applying another coat to achieve inter-coat adhesion. Mechanical sanding with 220 – 320 grit is recommended before reapplication.

Dry Times

Evolution Yacht Topcoat			
	68°F (20°C)	86°F (30°C)	104°F (40°C)
Dust Free	2 Hours	1 Hour	30 Minutes
Full Cure	7-9 Days	5-6 Days	3-4 Days

Note: Dry Times are subject to ambient conditions (temperature and humidity), good airflow and film build of the topcoat.

The use of SuperCatalyst II with Evolution Clear will accelerate drying times.

Film Build

Evolution Yacht Topcoat has a recommended film build thickness of:

Wet: WFT Unreduced	3.5 – 5.5 mils	89 – 140 microns
Dry: DFT	1.5 – 2.5 mils	38 – 63 microns

Theoretical coverage at 1.0 mil (25 microns) average DFT: 738 ft² per gallon at 100% transfer efficiency.

Clear Coating Information

Evolution Yacht Topcoat can be cleared with Evolution Clear 1:1 or Diamond Acrylic Clear 4:1

Metallics and pearls must be topcoated within this re-coat window as sanding is not recommended.

Ambient conditions and the use of accelerators like **SuperCatalyst II** will affect the overcoat / recoat windows for Evolution Yacht Topcoat. Contact your Endura representative for recommended procedures that will suit your application schedule.

Clear coats can be applied as soon as the topcoat surface has cured enough to wipe with a tack cloth. Apply 2-3 wet coats at 2.0 – 3.0 wet mils with a 15 – 20-minute flash off between coats.

Clean Up

Clean all equipment immediately after use with a High Strength Gun Wash, Endura epoxy reducers or Endura topcoat thinners/reducers. Follow manufacturer's safety recommendations when using any solvent.

Environmental Conditions

For optimum coating performance product, substrate and ambient temperature should be between 68°F-77°F (20°C-25°C). To prevent condensation during application the surface temperature must be 5°F (5°F) or more above the dew point at all times. For use outside this range contact your Endura Representative.

Safety Precautions

Please refer to all Safety Data Sheets (SDS) before using this product. SDS sheets can be found on our website at www.enduramarinepaint.com