

## Twocomponent paint system on steel above the waterline

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### Preparation of bare steel

The longevity of all paint systems depends on a thorough surface preparation and working condition during application and drying. The formation of rust may continue below paint layers and painting on a humid surfaces may lead to the formation of blisters and de-adhering.

### Derusting

The steel surface must be cleaned of rust and mill scale, preferably by sandblasting or by high pressure hydrojetting to SA 2.5. If sandblasting is not possible, sand the entire surface manually or by machine using 60-80 dry abrasive paper. All welding spots/drops must be removed and sharp edges must be rounded with a grinder. Do not use a wire brush as this may lead to renewed oxydation of the steel. Areas where rust removal is difficult should be prepared with Epifanes Rust Remover. This rust convertor makes steel surfaces suitable for coating and stops the rusting process for 48 hours. NOTE: This product is no substitute for any (primer-) coat. It is designed for surface preparation prior to applying an anti-corrosion paint system. After cleaning, removing rust and sanding, apply the first (thinned) primer coat as soon as possible to ensure the least amount of renewed oxydation. The temperature of the (bare) steel must at least 3°C (6°F.) above the dew point.

### Degreasing

After derusting and sanding, clean the steel surface and degrease with Epifanes Cleaning Solvent. In case of insufficient degreasing, adhesion problems may occur. Degreasing by performing the two-towels-methode: keep one towel well saturated and wipe in one direction on the fibreglass surface. Use the second towel to remove the collected contamination. Always work in one direction. Do not wipe back and forth. Replace towels regularly.

### Working conditions

All surfaces to be painted must be 100% dry. The relative air humidity should not exceed 70%. Temperature of the paint, the object/surface and working area should be more or less the same. Large temperature differences may have repercussions on adhesion, drying and hardening. The temperature of the (bare) steel must at least 3°C. above the dew point. Recommended temperature range of application and curing : 12 – 20°C.

After removing rust, sanding and degreasing, apply the first (thinned) coat Epifanes Epoxy Primer as soon as possible (within 4 hours) to ensure the least amount of renewed oxydation. Larger surface may be treated in sections

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### System build up brush/roller application

Coat #	Product	Thinning %	filmthickness			Recoatibility in hours			Sandability
			nat	droog		12°C.	20°C.	28°C.	
1.**	Epoxy Primer	25%	80-200µm	40-100µm	Brush	18	12	10	24 hours
2.*	Epoxy Filler 1500	n.v.t.	n.v.t.	n.v.t.	trowel	36	24	20	24 hours
3.*	Epoxy Fin. Filler	n.v.t.	n.v.t.	n.v.t.	trowel	36	24	20	24 hours
After curing degrease with Epifanes Cleaning Solvent or denaturated alcohol and sand with P180 .									
4.**	Epoxy HB Coat	5-10%	100-200µm	85-170µm	Brush	10	6	4	24 hours
5.**	Epoxy HB Coat	5-10%	100-200µm	85-170µm	Brush	10	6	4	24 hours
6.	Poly-urethane Primer	0-5%	80-120µm	40-60µm	Brush	10	6	4	24 hours
Allow 24 hours to cure and sand with P320.									
7.	Poly-urethane Yacht Paint	0-5%	60-70µm	30-35µm	Brush	36	24	18	24 hours
8.***	Poly-urethane Yacht Paint	0-5%	60-70µm	30-35µm	Brush	36	24	18	24 hours
9.	Poly-urethane Yacht Paint	0-5%	60-70µm	30-35µm	Brush	36	24	18	24 hours

### Recommended thinners:

Epoxy primer	Epoxy HB Coat	Poly-urethane Primer	Poly-urethane Yacht Paint
Thinner D-601	Thinner D-601	Poly-urethane Brushthinner	Poly-urethane Brushthinner or PU Slow Reducer when applying above 18°C ****

### Remarks:

- \* Fill only if irregularities remain visible in the final result. Use Epifanes Epoxy Filler when filling deeper than 15-20mm. This light weight epoxy filler has a higher resistance to sagging. After curing, always degrease with Epifanes Cleaning Solvent.
- \*\* After curing degrease Epoxy Primer en Epoxy HB Coat with Epifanes Cleaning Solvent to remove amine blush. Epoxy HB Coat is available in light grey and black
- \*\*\* If applied between 24 -48 hours Poly-urethane Yachtpaint coats may applied without intercoat sanding. If applied after 48 hours, always sand. Sand second-last coat Poly-urethane yacht paint with wetordry abrasive paper P400.
- \*\*\*\* When applying above 18°C. use Epifanes PU Slow Reducer. This slow evaporating thinner provides a longer open time allowing a better flow.

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