Osmosis Prevention and Treatment

The problem of osmosis appears in the form of blisters in the gel coat, which is caused by moisture infiltration in to the gel coat, causing a chemical reaction forming pressure under the gel coat thus creating blisters. The blisters can appear in small or large form in unprotected fibreglass boats. The osmosis problem can occur at any time dependant on a number of factors, the quality of the laminate construction, temperature and type of water. Therefore Skipper's Line has developed a system for the protection against an osmosis problem and the treatment of the osmosis problem.

Prevention Treatment - Bare Fibreglass

The application of Epofond HB a two-component anti-osmosis epoxy primer onto the GRP surface to help prevent the problem of osmosis.

Surface Preparation - Prevention

The surface should be thoroughly degreased, cleaned and sand papered with a medium abrasive paper (180-240). When the surface preparation has been completed apply 2-3 coats of Epofond HB to build up a total film thickness of approximately 200 dry microns. (For new boats it is recommended to follow the surface preparation for GRP/FRP before applying an prevention treatment).

Epofond HB can be over coated with any two-component coating without sanding within 30 days of application. If Epofond HB is being over coated with a one-component product, it is recommended to allow the recommended recoating time for temperatures between 10-20°C 12-24 hours. Follow the products application guide.

Treatment System – GRP/FRP affected by osmosis

For GRP substrates that are affected by osmosis, the preparation will include the removal of all of the paint and antifouling and possibly the gel coat. This can be undertaken in a number of different forms, gel coat peeling, grit blasting or by mechanical sanding. It is important that the affected areas if not all areas of the gel coat are removed. A thorough cleaning and drying process should be carried out on the exposed surface to remove contamination, and the hull should be allowed time to dry out for between 1-3 months. Further cleaning should take place within that time to remove any contamination that may still be present within the substrate. After the substrate has been cleaned and a suitable time lapse has passed enabling the substrate to dry out to the recommended moisture levels, it will be possible to apply the first coat of Eposealer.

Eposealer should be applied without dilution at a approximately 120-200 wet microns a coat, leaving to dry for 24 hours at 20˚C. The film should be wet sand papered, and a second coat of Eposealer should be applied and a third allowing the required waiting times between coats. It is recommended to allow the Eposealer to completely cure before the application of the subsequent coating system, or before the vessel is launched.

Osmosis Prevention Indicative Coating System

1. Bottom Coating System – Below Waterline

No Coats	Product Name	Thinner		Coverage (m2/Lt)	Recoating (at 20˚C)
2-3	Epofond HB High Build Primer	10-15% Brush 765	15-20% Spray 765	4-5	12-24 hours
2	Solver Primer/intermediate coat	10-25% Brush 400	15-30% Spray 400	4-6	Min 6 hours
	or				
	Unifiber Primer	0-5% Brush 765	10-20% Spray 765	10	Min 6 Hours
2	Standard Plus Antifouling	Max 5% Brush 400	10% Spray 400	10-12	18-24 hours

Osmosis Treatment Indicative Coating System

1. Bottom Coating System – Below Waterline					
No Coats	**Product Name**	**Thinner**		**Coverage (m2/Lt)**	**Recoating (at 20˚C)**
4-5	Eposealer Epoxy Primer	15-20% Brush 765	20-25% Spray 765	5	18-24 hours
1-2	Epofond AM/9 Epoxy primer	10-15% Brush 765	15-25% Spray 765	8-9	12-24 hours
2	Solver Primer/intermediate coat or Unifiber Primer	10-25% Brush 400 0-5% Brush 765	15-30% Spray 400 10-20% Spray 765	4-6 10	Min 6 hours Min 6 Hours
2	Standard Plus Antifouling	Max 5% Brush 400	10% Spray 400	10-12	18-24 hours

Note: *The information is given to the best of our knowledge, and not intended to be exhaustive. But since the conditions of use of our products are beyond our control, no warranty is given or to be implied in respect of such information. We are, at all times, willing to study customer\specific requirements involving our products in order to enable their most effective use. Dilution rates and drying times are to be considered only indicative, based on a temperature of 20°C (68°F), and may be subject to changes according to prevailing temperature, in presence of particular weather conditions or due to application procedures that may be effective at time of application. This information is liable to modification from time to time.*