

Bonding of Rub Rails and Fenders



Application Description

Rub rails and fenders are designed to protect the hull of a vessel against damage. These act as a bumper to absorb impacts and scrapes, and the more elastic these are, the more effectively they perform this function.

The elastic behaviour varies according to the type of material used, so the shock-absorbing performance of the rub rail can be significantly

improved by the use of an elastic adhesive joint. This provides maximum protection to the hull.

Rub rails of timber, PVC or polyurethane can be securely bonded to marine hulls using Sikaflex®-292. The resulting elastic joint helps to absorb most of the shear and tensile stresses to which they are subjected when a vessel is docking or casting off.

If rub rails are secured with screws, a similar effect can be obtained by backfilling the rail profile with Sikaflex®-291; a highly elastic polyurethane sealant. As well as absorbing torsional stresses, this technology also seals the screw holes and prevents water or dirt from getting behind the rub rail.



If the rub rail has a different chemical composition and is not fixed using a mechanical fixing method, please seek advice from your local Sika company

Bonding Rub Rails to the Hull

Substrate Preparation

Fiberglass Hull

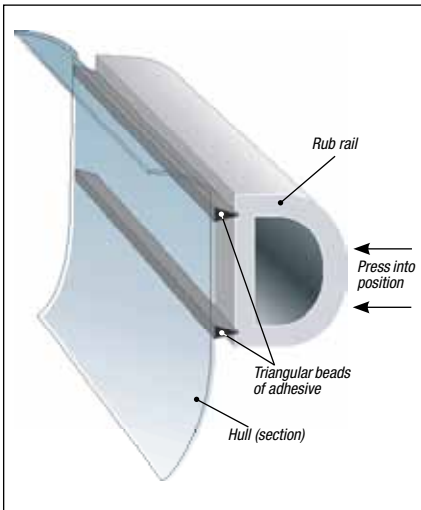


Fig. 77 Assembly of a rub rail










 208	Heavily soiled surfaces should first be cleaned off with a pure solvent, like Sika® Remover-208, to remove the worst of the soiling
	Lightly abrade the contact area with a very fine sanding pad
	Remove the dust with a vacuum cleaner
 205 Aktivator	Pretreat the substrate with Sika® Aktivator or Sika® Aktivator 205 using a clean, lint-free rag or a paper towel. Change the rag frequently!
	Flash-off: 10 minutes (min) to 2 hours (max)
 206 G+P 215	Apply a thin, continuous coat of Sika® Primer-206 G+P or Sika® Primer-215, using a clean brush or a felt applicator
	Drying time: 30 minutes (min) to 24 hours (max)



Fig. 78 Sealing the edge of a chrome rub-rail

Finished Painted Hulls of Aluminium or Steel, Coated with a Two-Part Lacquer

 205 Aktivator	Pretreat the substrate with Sika® Aktivator or Sika® Aktivator 205 using a clean, lint-free rag or a paper towel. Change the rag frequently!
	Flash-off: 10 minutes (min) to 2 hours (max)

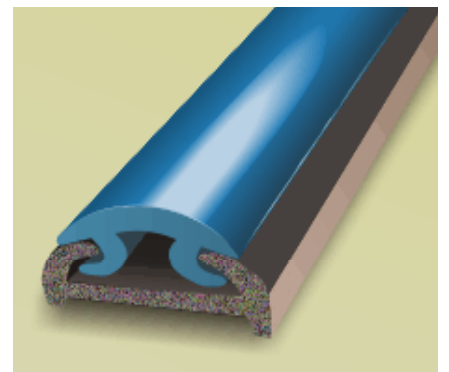










Fig. 79 A sample section of rub-rail










Timber Rub Rails

	Abrade the contact area of the hull with a sanding pad (80/100 grit)
	Remove the dust with a vacuum cleaner
 215	Apply a thin, continuous coat of Sika® Primer-215, using a clean brush or a felt applicator.
	Drying time: Sika® Primer-215 - 30 minutes (min) to 24 hours (max)

Moulded PVC or Polyurethane Rub Rails

	The bond face of the rub rails must be free from mould release agents or other chemical contaminants. All traces of such substances must be removed before proceeding
	Abrade the bond face of the rub rail with coarse sand paper (60/80 grit) to key the surface
 210	Apply a thin continuous coat of Sika® Primer-210 using a clean brush or felt applicator
	Drying time: 30 minutes (min) to 24 hours (max)

Application of Sikaflex®-292 or Sikaflex®-291 Adhesive/Sealant

	Place the elastic spacers in position (thickness 2 mm, approximately 50 Shore A hardness)
 292 291	Apply Sikaflex®-292 (or Sikaflex®-291 if rub rails are to be held using additional mechanical fixings) to the bond area using an appropriate bead (Fig. 77)
	Assemble the components within 20 minutes of applying the adhesive
	Press the rub rail into place, either directly onto the face of the hull or fitted over the core profile
	Use clamps, etc., to hold the rub rail in position while the adhesive sets. If the rub rail is to be secured with mechanical fixings, any holes should also be filled with adhesive
	Clamps and other fastening aids can be removed after 24 hours
	Full service strength is attained after approximately 7 days
 208	Uncured Sika adhesives or sealants can be removed with Sika® Remover-208 or mineral spirits.
	Do not use Sika® Aktivator or Sika® Aktivator 205 or any other cleaning agent or solvent for cleaning purposes