Bonding of rub rails and fenders

GENERAL 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 shockabsorbing 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®-292i. 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 back-filling the rail profile with Sikaflex®-291i; 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.

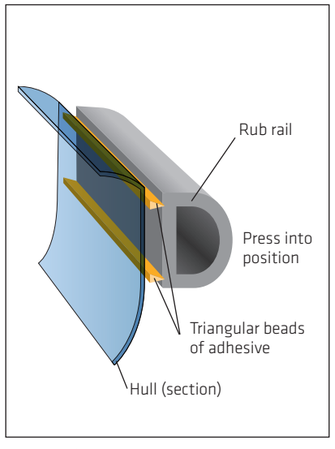
IMPORTANT:
If the rub rail has a different chemical composition and is not fixed using a mechanical fixing method, please seek advice from your local Sika company.

BONDING RUB RAILS TO THE HULL

SUBSTRATE PREPARATION

GRP HULLS

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
SA 100	Pre-treat the substrate with Sika® Aktivator-100, using a clean, lint-free rag or a paper towel. Change the rag frequently!
	Flash-off: 10 minutes (min) to 2 hours (max)
SMM	Apply a thin, continuous coat of Sika® MultiPrimer Marine, using a clean brush or a felt applicator
	Drying time: 30 minutes (min) to 24 hours (max)



Assembly of a rub rail

FINISHED PAINTED HULLS OF ALUMINUM OR STEEL, COATED WITH A TWO-PART LACQUER

SA 100	Pre-treat the substrate with Sika® Aktivator-100, using a clean, lint-free rag or a paper towel. Change the rag frequently!
	Flash-off: 10 minutes (min) to 2 hours (max)

TIMBER RUB RAILS

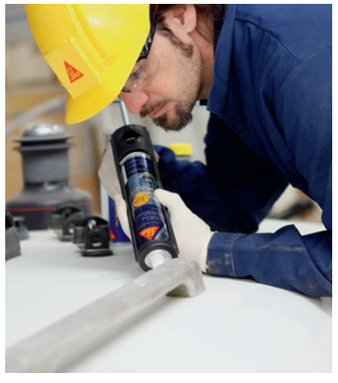
	Abrade the contact area of the hull with a sanding pad (80 / 100 grit)
	Remove the dust with a vacuum cleaner
SMM	Apply a thin, continuous coat of Sika® MultiPrimer Marine using a clean brush or a felt applicator.
	Drying times: Sika® MultiPrimer Marine 30 minutes (min) to 24 hours (max)

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 with Sika® Remover-208
	Abrade the bond face of the rub rail with coarse sand paper (60 / 80 grit) to key the surface
SA 205	Pre-treat the substrate with Sika® Aktivator-205 using a lint-free rag or paper towel. Change rag frequently.
	Flash-off min. 10 min to max 2h.
SMM	Apply a thin continuous coat of Sika® MultiPrimer Marine using a clean brush or felt applicator
	Drying time: 30 minutes (min) to 24 hours (max)

APPLICATION OF Sikaflex®-292I OR Sikaflex®-291i

	Apply a masking tape on the substrate
292i 291i	Apply Sikaflex®-292i (or Sikaflex® 591 if rub rails are to be held using additional mechanical fixings) to the bond area using an appropriate triangular bead
	Assemble the components within 20 minutes of applying the adhesive
	Press the rub rail into place, either directly onto the face of the hull
	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
	Remove excessive adhesive and the masking tape
208	Uncured Sika adhesives or sealants can be removed with Sika® Remover-208
	Clamps and other fastening aids can be removed after 24 hours Full service strength is attained after approximately 7 days



Sealing the edge of a chrome hand-rail