

BONDING OF TIMBER ELEMENTS

In yachts and pleasure craft as well as in ocean-going vessels, stairs, companion-ways and handrails are frequently made from tropical hardwood, chosen both for their durability and their attractive appearance.

The use of screws to attach these fixtures can impair both their durability and their appearance as they are vulnerable to moisture gaining access through the fixing holes. Hardwood components like these can be fixed with adhesives, where the absence of screw holes leaves the wood unimpaired and more resistant. This is of particular importance where the wood is load bearing as in the construction of accommodation ladders.










Bonding also has other benefits. The resilient adhesive layer softens the sound of footsteps and cushions vibrations, the integrity of painted surfaces can be preserved without loss of corrosion protection and the effects of moisture penetration are eliminated.

The Sika products for bonding timber elements are Sikaflex®-298 or Sikaflex®-298 FC (low viscous) for big bonding parts or parts which do not need an instant fixation until the hardening process took place (horizontal applications).








SUBSTRATE PREPARATION





GRP

 208	Heavily soiled surfaces should first be cleaned off with Sika® Remover -208 to remove the worst of the soiling
	Lightly abrade the contact area with a very fine sanding pad (abrasive pad very fine)
	Remove the dust with a vacuum cleaner
 SA 205	Treat the substrate with Sika® Aktivator-205, using a clean, lint-free rag or paper towel. Change the rag frequently!
	Flash-off: 10 minutes (min) to 2 hours (max)
 Primer	Apply a thin, continuous coat of Sika® Primer-290 DC or Sika® MultiPrimer Marine using a clean brush or a felt applicator
	Drying time: 30 minutes (min) to 24 hours (max)








METALL DECK COATED WITH A 2 C-PAINT

	Ensure that the painted metal deck is compatible with Sikaflex®-298. Test the surface with a rag and thinner. The paint should not be removable by this operation. When the paint is disolvable sandblast off the paint down to the metallic surface and use SikaCor® ZP Primer (see page 6)
	Lightly abrade the contact area with a very fine sanding pad (Scotch Brite very fine)
	Remove all dust with a vacuum cleaner
 SA 100	Treat the substrate with Sika® Aktivator-100, using a clean lint-free rag or paper towel. Change the rag frequently!
	Flash-off: 10 minutes (min) to 2 hours (max)

UNTREATED WOOD

	If the surface is soiled, abrade the contact area with a sanding pad (80 / 100 grit)
	Remove the dust with a vacuum cleaner
 Primer	Apply a thin, continuous coat of Sika® Primer-290 DC or Sika® MultiPrimer Marine, using a clean brush or a felt applicator
	Drying time: 30 minutes (min) to 24 hours (max)

STAINLESS STEEL

 208	Heavily soiled surfaces should first be cleaned off with Sika® Remover-208 to remove the worst of the soiling
	Lightly abrade the contact area with a very fine abrasive pad (abrasive pad very fine)
	Clean with a proper rag or a vacuum cleaner
 SA 100	Pre-treat the substrates 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)
 Primer	Apply a thin, continuous coat of Sika® Primer-290 DC or Sika® MultiPrimer Marine using a clean brush or a felt applicator
	Drying time: 30 minutes (min) to 24 hours (max)

APPLICATION OF Sikaflex®-298

The choice whether you use Sikaflex®-2xx or -298 depends on the parts to be bonded.

Big horizontal areas are better to bond with Sikaflex®-298 as this low viscous product is easier to apply with a trowel. The bedding process should be made with weights or with a vacuum press.

Smaller parts, inclines on vertical applications, or parts which have to be fixed with a vacuum press are best to be bonded with Sikaflex®-2xx. The higher viscosity of this product prevents a squirring out during vacuum application.




 291i	Apply Sikaflex® with a notched trowel on the prepared surface. Use a notched trowel with 4 mm rectangular notches depending of the roughness of the substrates
 291i	The thickness of the layer depends on the roughness of the surface but has to be at least 1.2 mm (2 sausages 600 ml / m²)
	Apply the timber within the open time of 15 minutes. Fix the components for 24 hours



Fig. 55 Application of Sikaflex®-298



IMPORTANT:

it is essential that the elements are completely pressed down to the substrate to avoid water penetration underneath the timber element. This may create fouling and subsequent degradation of the wood.

Remove cured excess Sikaflex®-298 with a knife and seal the edge without additional pre-treatment.

If necessary joints on the side of the elements may be sealed with a weathering resistant sealant like Sikaflex®-295 UV.

DISCLAIMER

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered.

The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Sika Product Datasheet for the product concerned, copies of which will be supplied on request.