



SPECIFICATION FOR BONDING TEAK PLANKING TO AN ALUMINIUM DECK



SURFACE PREPARATION

Aluminium Surface

Aluminium - Non-anodised material must be degreased and either thoroughly abraded or chemically etched, (for example use a branded aluminium etch compound).

Anodised aluminium and anodised aluminium alloys - must be bonded as quickly as possible after degreasing and abrading and certainly within 2 hours.

Hard anodised aluminium alloy - must be stripped by abrasive blasting or by etching (for example use a branded aluminium etch compound).. Unstripped metal is not suitable for bonding.

Thoroughly abrade the aluminium to remove all previous coatings and chemically etch using a branded etching compound. Application details given in the relevant technical data must be carefully observed when using such etching compounds.

After etching, wash and thoroughly dry the aluminium; after abrading, ensure dust and debris is brushed away before applying an aluminium primer in accordance with the manufacturer's recommendations. Ensure this surface is kept free from contamination by covering the area with peel ply or a similar alternative.

If the aluminium is smooth and uniform with no hollows or variations in level, the substrate is now suitably prepared for the bonding of the teak boards. However, if the surface is uneven it is essential to screed and fair the aluminium in the following manner:-

- (i) When the aluminium primer is dry to the touch apply a coat of WEST SYSTEM 105/205 epoxy at a coverage rate of between 7 to 8m²/kg.
- (ii) As soon as this wetting coat is touch dry and certainly within eight hours of original application, prepare a screeding mix of WEST SYSTEM 105 Resin, 205 Hardener and 407 Low Density filler. Screed the filled epoxy system over the substrate using a WEST SYSTEM 808 Plastic Squeegee or 809 Notched Spreader or similar tool.
- (iii) Allow the screed to cure for a period of 24 hours before fairing commences.
- (iv) With the substrate fair, apply a further coat of WEST SYSTEM 105/205 epoxy and soon after application, overlay the area with peel ply, to maintain a contaminant free surface until the teak laying operation commences.

Teak Boards

It is essential to abrade the boards with coarse grit paper (50-60 grit paper), sanding across the grain. Remove the sanding dust and then wipe the prepared surface with acetone to complete the pre-treatment. (Note: In the bonding operation the teak must be pre-wetted with WEST SYSTEM epoxy, but this should be applied soon after the solvent has evaporated - between 15 minutes to one hour).

BONDING THE SUBSTRATES

- (i) Remove the peel ply from the area of aluminium which is to be worked upon within, say, the next six hours. Lightly sand the faired surface and brush away the debris.
- (ii) Prepare a mix of WEST SYSTEM 105/205* epoxy and pre-wet the mating surfaces of both the aluminium and the teak planking. The epoxy can be applied with either a roller or brush - only a thin coating is required.

- (iii) Prepare a mixture of 105 Resin /205 Hardener * and 403 Microfibres, spread the mayonnaise thick epoxy over the surface of the aluminium. It is important to apply the thickened mix whilst the primer or wetting coat is uncured, i.e. tacky.
- (iv) Carefully place the planks in position and temporarily fasten or place weights to hold the timber in position. Ensure the holding pressure which is exerted does not cause excessive squeeze-out of resin, but whilst in the uncured state, remove any adhesive which may have exuded between the boards.
- (v) Allow the epoxy to cure between 12 and 24 hours, depending upon temperature, before removing the restraining fixtures.

* If a longer application time is required or working temperatures are in excess of 22°C/23°C, it may be advisable to use WEST SYSTEM 105 Resin /206 Slow Hardener, a slower setting epoxy.

Please refer to the WEST SYSTEM User Manual and Product Catalogue for further information.