Australian Made NORGLASS Specialty Finishes Australian Owned

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INFORMATION GUIDE

ROTTING TIMBER FLOORING IN ALUMINIUM BOATS

Problem

Every day Norglass receives calls from boat owners with the above concerns, and electrolysis issues. In an attempt to assist these queries we have outlined the following information.

Rotted timber floors

In construction, Marine grade plywood is normally used, and a water resistant carpet adhered to the face before or after installation.

Because of the varying techniques and builders involved it is only possible to generalise the degree of protection afforded to the plywood, but the **main issue** is this… The wood is only **externally** prime-coated, at best. After the carpet has been applied, the panels are then (in many cases) fastened down with self-tapping screws. Now here, there are **2 sets** of differing problems.

1. The stainless self-tappers into the aluminium have varying differences of co efficiency in expansion. In other words their expansion and contraction rates are different. This causes the metals to work against one another. Now introduce moisture and the less noble metal (aluminium) becomes corroded.

   The second problem is caused by the fastening process.

   Once the self-tapping screw is driven home moisture then seeps down the screw thread from the carpet and into the unprotected plywood core… Result rotting wood. At this point it is worth referring the reader to the Norglass "How to guide" on STOPPING THE ROT IN TIMBER.

   Invariably at this stage the flooring is totally compromised and needs replacing.
   If a new floor is to be installed, please take note that the procedures recommend must be carried out in full, otherwise the whole process will need to be undertaken again a few years later.

1. Cut the plywood to the sizes of the removal panels.

2. Dry fit the panels, and locate where the fastenings are to be made.

3. Drill the holes as required, and mark each sheet location.

4. Apply 2 coats of mixed NORSEAL to **all** of the plywood taking special care to liberally coat all of the screw holes.
5. As an added insurance, apply a full-bodied coat of SHIPSHAPE to all of the metal surfaces **below** the flooring. SHIPSHAPE is not only **waterproof** but will help to insulate the aluminium from accidental contamination i.e. sinkers copper wiring, coins etc. (electrolysis)

6. Insert the screws with a proprietary product such as Loctite

NOTE:
Do not rely on flexible sealants to solve the problems, because most have the ability to only stretch in one dimension at a time and will therefore let go…negating their waterproofing value.

FOOTNOTE:
Fibreglass boat flooring suffers from the same rotting issues but with different structural issues of inflexibility. NORGLASS TECHNICAL ADVISORY SERVICE is available for these variations to the problems.