



Resene Paints Limited

# Architects Memo

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## SURFACE PREPARATION

Recognising the importance of correct surface preparation for any successful paint job, Resene Paints Limited included a variety of detailed information sheets on this subject in their Manual. From the many enquiries we receive on this subject it appears that information on this subject requires further dissemination. Therefore for this and some further memos we intend to reproduce these articles on surface preparation starting with Timber.

### **Timber** Including reconstituted timber products

#### **General**

Timber is a dimensionally unstable material which expands and contracts with changing moisture content. The timber surface is eroded by ultra violet light, normally changing to grey colour, and leaving cellulose fibres exposed on the surface. Timber also provides a source of nutrient for mould growth. A protective system for timber needs to be able to combat these three sources of aggression, viz water, ultra violet light, and mould.

Some timbers contain resins and oils which can affect the performance of paint, i.e. resin pockets in pine which can soften and bleed through paints; oils in teak which can prevent penetration and adhesion of paint anti-oxidants in totara and matai which will inhibit the drying of oil-based paints.

Reconstituted timber products are subject, to a greater or lesser degree, to the same degradations as timber. The majority of these products contain wax to improve water-resistance and wet-strength. These waxes can be dissolved in hydrocarbon solvents present in oil-based paints, and are then deposited on the film surface when the solvent evaporates. This wax layer can upset the gloss and finish of the paint system and seriously retard the drying of oil-based paints by blocking the ingress of oxygen needed for curing.

#### **Surface Preparation**

If mould is present, treat with Resene Moss and Mould Killer (See D80). Sand the surface (always along the grain), to remove minor imperfections and any loose surface fibres. Loose fibres can be assumed to be present if timber is left uncoated in the weather for more than one week.

- N.B.
- (1) Always coat any end grain prior to erection.
  - (2) Never coat timber when its moisture content is higher than 16%.
  - (3) Always carry out filling procedures after priming.

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