

## Urethane Coatings Product Knowledgebase

### **Why is the first coat taking too long to dry?**

- Typical drying conditions assume a temperature of 25°C, and 50% relative humidity.  
Drying times of Urethane Coatings Products;  
MONOTHANE 45 GLOSS (Moisture cure Polyurethane) - Touch Dry 3 Hours  
TIMBERSEAL (Vinyl Base) - Touch Dry 1 Hour  
TUNGSEAL - Touch Dry 1.5 Hours  
MODIFIED OIL GLOSS, MODIFIED OIL SATIN - Touch Dry 1.5 Hours

- 1. There are several reasons why the first coat may be taking longer to dry than the above indicated times.

If a first coat is applied as a thicker finish it will extend the expected time to dry, generally at a similar ratio to the increase in finish thickness. i.e. if the coat is applied twice as thick as recommended it will take at least twice as long to dry. We suggest you remain within the recommended application rates and if a thicker coat is required apply an additional coat.

Drying at or below temperatures of 10°C can become extremely slow - several hours longer than at 25°C, and if humidity is high drying is further delayed. Both the ambient temperature and the temperature of the SURFACE to be coated influence the rate of drying. Items of significant mass such as floors, typically take longer for their temperature to change than the air. Therefore in winter after a cold night, the air temperature will increase more quickly than a floor temperature. Accordingly it is possible for the air temperature to be 10°C or more with the floor temperature less than 10°C (as low as 5°C to 7°C), creating extremely poor drying conditions.

Do not apply MONOTHANE, TUNGSEAL or MODIFIED OIL when air and/or surface temperature is below 10°C

The presence of oils and waxes on the surface and within the timber can slow drying. Many species of timber contain high levels of oils and waxes (often referred to as natural contaminants), particularly (but not limited to) Brush Box, Blackbutt, Tallowwood and Spotted Gum. Timber is porous and in some circumstances of climatic conditions has potential to become part of a cycle of absorbing moisture from and releasing moisture to the atmosphere. As part of this cycle the moisture entering the timber is known to dissolve some of the oils and waxes (contaminants) within the timber, and later as the timber dries contaminants are drawn up to and condense on the surface.

In extreme circumstances the presence of natural contaminants on the surface to be coated in combination with low temperatures can delay the drying of TUNGSEAL and MODIFIED OIL by several days.

<http://www.urethanecoatings.com.au/kb/questions.php?questionid=5>