

# Toby Technical

## Bulletin 17

### Application of Polyurethane Timber Floor Coatings During Winter

Toby Polyurethane Timber Floor coatings have been designed so they may be used anywhere in Australia throughout the year. However, due to the variety of climatic conditions between regions and the seasonal changes, if these coatings are applied during the winter months some precautions may be necessary.

Drying of Polyurethane Coatings including waterbased products is influenced by:

- Temperature
- Humidity
- Airflow
- Film Thickness

The recommended application window for 1-Pack Moisture Curing Polyurethanes, 2-Pack Polyurethanes and Waterbased Polyurethanes is approx. 12-30°C and 40-80% relative humidity, with an optimum of 25°C and 60% relative humidity.

Details on drying of Moisture Curing Polyurethanes are described in Toby Technical Bulletin 16.

#### Temperature

A significant drop of the application temperature slows down the drying and curing process of the applied Polyurethane coating.

The temperature during winter is often below 12°C especially in the morning and late afternoon.

Note: temperature on a floor can be significantly lower than the surrounding air temperature and the temperature of the coating material stored in a van overnight can be extremely low.

The following problems can be caused if the material is applied at low temperature:

- Drying and curing is affected. Tack free time and recoat time is longer compared with normal conditions, it may take up to 24 hours or even longer under extreme conditions
- A slower drying time may also effect the dust attraction. The longer the applied coating stays tacky the more chance for dust and dirt from the surroundings to settle on the floor
- Toby Catalyst can be used to reduce drying time, but do not exceed the recommended Catalyst level. This may result in surface defects (bubbles and 'orange peel' effect) and influence the performance of the timber floor coating