



**MIROTHANE**



# **MIROTHANE PU** **Pigmented Coatings**

Product Information Guide

*Innovative Coating Solutions*

## General Description

Mirotone's range of polyurethane coatings are ideal for use on high quality fixtures and furniture. Easy to use and available in a range of gloss levels, Mirotone has the right system to meet your requirements.

## Advantages

- Excellent chemical and water resistance
- Excellent flow and levelling results in smooth level finish
- Available in a range of gloss levels and colours

## Recommended Use

Internal doors  
Kitchen & Bathroom Cabinets  
Commercial Joinery / Wall Panelling  
Domestic & Commercial Furniture

With the application of the recommended undercoat or primer may be applied over wood, MDF & melamine, glass, plastic and metal.

## Product Compliance

### Children's Toys (Heavy Metal Content)

Mirotone's "Chemicals of Concern Policy" requires that all of its wood coatings comply with the following standards that specify stringent limits on the permitted amount of toxic heavy metals:

- AS/NZS ISO 8124.3:2003 (Children's Toy Safety Requirements)
- BS/EN 71-3:1995 (Safety of Toys) Part 3. Specification for migration of certain elements.

## Application Methods

Suction Gun:	Use 1.5 to 2mm (59-79 thou) orifice with 350-400kpa (50-55 psi).
Pressure Pot:	Use 1.5 to 2mm (59-79 thou) orifice with pressure pot air-cap. Gun pressure 350-400kpa (50-55 psi) and a pot pressure of 45kpa (6 psi) max.
Airless Spray:	Use 0.23 to 0.33mm (9-13 thou) orifice, 15cm fan (dependent on job) with regulated pump pressure of 350-400kpa (50-55 psi).
Air Mix Guns:	Settings similar to airless spray with the air-assisted regulator pressure at 70-90kpa (10-15psi).
Curtain Coating (5605)	Viscosity 40-50 seconds. Consult your local representative for further information.

## MIROTHANE PU Part B Hardeners

Part B	Cure Speed	Low Yellowing	Solids	Flexibility
MIROTHANE PU 5728	Fast	Will Slightly Yellow	High	Good
MIROTHANE PU 5735	Fast- Medium	Will Slightly Yellow	High	Very Good
MIROTHANE PU 5757	Medium	Low Yellowing	High	Very Good
MIROTHANE PU 5776	Medium – Slow	Low Yellowing	High	Excellent
MIROTHANE PU 5784	Slow	Low Yellowing	High	Excellent
MIROTHANE PU 5789	Slow	Non Yellowing	High	Excellent
MIROTHANE PU 5747	Fast	Will Slightly Yellow	Low - RFU	Good
MIROTHANE PU 5780	Medium - Slow	Low Yellowing	Low - RFU	Excellent

The low yellowing rating guide refers to the MIROTHANE PU Part B only. Where a low yellowing system is required the user must check that the MIROTHANE PU Part A Base meets their low yellowing requirements.

### MIXING RATIO PU 5673

#### Mixing Ratio (by volume) for 10% Matt, 30% Satin & 60% Semi-Gloss:

2 Parts PU 5673 Part A + 1 Part 5747 (2A:1B).

#### Mixing Ratio (by volume) for Full Gloss:

2 Parts PU 5673 Part A + 1 Part 5735 (Winter), or 5757 (Summer).

Note: The mixing ratios above may affect gloss levels. For customisation ensure the same mixing ratio and thinner is used throughout the project.

### MIROTHANE PU 5795 Accelerator

In cold temperatures, MIROTHANE PU 5795 Accelerator may be added to MIROTHANE PU 5605, 5650, 5626 or 5631 to speed up the drying time.

Add up to 3% MIROTHANE PU 5795 Accelerator (% addition calculated on Part A volume only).

Note: Use of MIROTHANE PU 5795 will shorten the pot life.

### Force Drying

Flash Off: 15 min at 20°C  
Force Dry: 30-60 min at 40-50°C (dependent on airflow)  
Cool Down: 15 min at 20°C

### Handy Hints

- High Humidity and Moisture: All wood will swell and discolour if allowed to come into contact with water vapour. The protection provided by a coating is dependent on the moisture transmission of the coating and on the thickness of the dry coating film applied. Coated edges are usually the most vulnerable to damage either from the coating being removed or by inadequate film builds in high wear / traffic areas. Special care should always be given to sharp edges as coatings do not build well onto them, resulting in reduced protection in high moisture environments.
- Damp Wood: Do not apply coatings over damp wood (moisture content greater than 15%) as it may result in loss of adhesion, cracking or veneer checking of the wood.
- High Humidity at Time of Application: Application of coatings at high humidity will speed up the drying process and reduce the pot life.
- Care must be taken to apply a uniform wet film thickness as gloss level is dependent upon WFT.
- Bridging / Cracking: Adding excess accelerator or hardener will lead to loss of flexibility of the coating. Do not exceed the recommended wet film thickness as excessive film weights will result in increased potential for cracking of the coating, particularly on routed MDF panels and doors.
- Inter-coat Adhesion: To ensure sound inter-coat adhesion, thoroughly sand between coats. To reduce the potential for adhesion failure in field, Mirotone strongly recommends you carry out regular and appropriate quality control testing of your production output.
- Cold Temperature: Application below 15°C will affect the drying and gloss level of the coating.
- Take care when handling as oils or fats from the skin may transfer to the surface of the coating and leave visible finger prints.
- Due care must be taken in harsh in-service environments as coatings can be damaged by sharp objects. Use placements, coasters, table cloths and other protective covering to prevent damage.

## Application System

**Surface Preparation:** Surface must be free from dust, grease, dirt and all contaminants. MIROSOL 1231 Wax & Grease remover can be used to wash the surface to remove wax and grease. Fill all defects with a water based wood filler (i.e. cracks, holes etc.) or 2 pack filler.

**Sand:** Sand wood with 180-240 grit paper. Sand MDF with 240-320 grit paper. Remove all dust using an air gun and clean lint free cloth.

**Undercoat:** Apply one of the following undercoats per the instructions on the relevant data sheet:

- MIROLAC NC 3125 (for subdued gloss levels only)
- MIROPOL PE 5110, 5111 or 5130
- MIROTHANE PU 5600, 5626 or 5631

**Sand:** Allow to dry per the technical data sheet and sand with 280-320 grit paper just prior to top coating. Use 400-500 grit paper where a high gloss finish is being applied. Remove all sanding dust.

**Topcoat:** Apply two coats of one of the listed topcoats per the directions on the technical data sheet:

MIROTHANE PU 5605 Polyurethane Topcoat  
MIROTHANE PU 5610 Polyurethane Topcoat  
MIROTHANE PU 5650 Polyurethane Topcoat  
MIROTHANE PU 5673 Polyurethane Topcoat  
MIROTHANE PU 5690 Polyurethane Topcoat

The following application technique is recommended for full gloss coatings:

- Apply a light 'tack' coat (100-125 WFT)
- Allow 1 – 5 minutes to flash off (depending upon temperature)
- Apply a second even wet coat.

**Buffing:** Allow the topcoat to dry for a minimum of 18 hours at 20°C before buffing. Buff / polish by hand or machine with a polish recommended for high gloss polyurethane finishes.

## Primers for Glass, Plastic, Metal & LPM

Glass – MIROLOK 3508 Glass Clean & Prime

Plastic – MIROLOK 3512 Clear Plastic Primer

Metal – MIROKEY VY 6615 Etch Primer

LPM – MIROLOK 3512 & MIROTHANE PU 5500

Refer to the primer data sheet for application details

## Tinted Undercoat

To create your own tinted undercoat and minimise waste left over MIROTHANE PU 5650 Topcoat can be added to MIROTHANE PU 5600 or 5626 Undercoats at an addition rate of 10 to 30%. See table below for details:

MIROTHANE PU 5600 or 5626	MIROTHANE PU 5650/30 Satin Topcoat	MIROTHANE PU 5747 2A:1B	Thinner Amount
90% = 900 mls	10% = 100 mls	500 mls	0-5%
80% = 800 mls	20% = 200 mls	500 mls	5-10%
70% = 700 mls	30% = 300 mls	500 mls	5-15%

## Topcoat Colour Matching Guide

Do not exceed the maximum colourant/tinter level recommended as this may affect the stability, colour and performance of the MIROTHANE PU topcoat.

White / White Light Base – add up to 10% by volume of colourant

Clear Tint Base – add up to 20% by volume of colourant

Using a commercial shaker or air driven mechanical stirrer mix for 10 minutes

### **Health & Safety**

Before handling, refer to the Material Safety Data Sheet for health and safety information. Ensure that all personnel using this product have read and understood this data sheet and the associated MSDS and packaging label before using this product.

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