

# URETHANE

## COATINGS

POLYURETHANE SPECIALISTS SINCE 1979

### TECHNICAL DATA SHEET

**MONOTHANE HS 50 GLOSS** is a transparent, single pack, moisture cure polyurethane that provides a hard wearing Gloss finish which maintains the natural character of timber.

**Uses:** MONOTHANE HS 50 GLOSS is used for coating all timber species, cork, particle board and concrete. MONOTHANE HS 50 GLOSS can be applied over TIMBERSEAL, SILVERSEAL, MONOTHANE or DUOTHANE FAST A/DUOTHANE PART A and DUOTHANE PART B. MONOTHANE HS 50 GLOSS is compatible with and/or may be mixed with, MONOTHANE 45 GLOSS, MONOTHANE SILVER GLOSS, MONOTHANE SEMI-GLOSS, MONOTHANE SATIN, MONOTHANE MATT and MONOTHANE SILVER SATIN.

#### Physical Description & Product Specification

#### MONOTHANE HS 50 GLOSS

Appearance	Transparent Liquid with mild aromatic odour.
Colour	Pale Straw.
Drying Time (hours) @ 25°C & 50% R.H.	Reduced temperature and/or decreased humidity will slow drying (extend each drying phase).
Dust Free	2.00
Tack Free	4.00
Print Free	6.00
Hard Dry	7.00
Reflectance (%)	97-100
Viscosity @ 25°C (seconds)	43-48
Solid Content (%)	51 (±1)
Wet film per coat (mm)	0.100
Dry film per coat (mm)	0.051
Solubility	Not Soluble in Water.
Specific gravity (H <sub>2</sub> O = 1):	0.97
Sanding & Recoat @ 25°C & 50% R.H. (Hours)	6.0 – 7.0
Sanding properties	Excellent
Thinning (Not Recommended)	Add 5-10% THINNERS if a higher coverage and a thinner coat is required.
Coverage (m <sup>2</sup> /Litre)	10.
Full cure (Days)	7.
Shelf life (Months)	12.

#### Product Slip Resistance – AS/NZS 4586:2004:

MONOTHANE HS 50 GLOSS has been evaluated by ATTAR (Advanced Technology Testing and Research) against Test Standard; AS/NZS 4586; 2004 Slip Resistance Classification of New Pedestrian Surface Materials; [Dry Test Standard – Appendix B & Wet Test Standard – Appendix A] DRY SLIP RESISTANCE – refer Appendix 1 – TABLE 3, CLASSIFICATION OF PEDESTRIAN SURFACE MATERIALS ACCORDING TO THE DRY FLOOR FRICTION TEST. Classification is F [  $\geq 0.4$  ].

(Actual test result: Dynamic Coefficient of Friction - Mean of 0.75).

WET SLIP RESISTANCE – refer Appendix 1 – TABLE 2, CLASSIFICATION OF PEDESTRIAN SURFACE MATERIALS ACCORDING TO THE WET PENDULUM TEST. Not Tested = No Classification.

**Application Data:****Floor Preparation:****General:**

1. Check that timber is adequately seasoned as if not, any subsequent cracking warping and shrinkage may compromise adhesion.
2. Ensure the surface is dry and thoroughly clean, removing all dirt, mildew, wax, grease, resin oils, tannins and dust. If Timber is extremely oily or tannin rich, dampen a mop or clean rag with Urethane Coatings THINNERS and complete a 'Chemical wash' wiping parallel to the grain in a similar manner to applying a coating (NOT in a circular polishing manner). If a large area is to be cleaned, thoroughly rinse the mop or rag every 3 to 5m<sup>2</sup>, re-dampen and continue.
3. Nail holes and surface defects should be filled with water based putty [**Refer Important Notice # 4** (Pg. 3)].

**New Floors:** Follow steps 1 to 3 above, sand the floor and fine sand, finishing with 120 grit screen back or pad and vacuum thoroughly.

**Old Floors:** Follow steps 2 to 3 above and clean with hot water and detergent. Roughen surface completely with 100 grit sandpaper and fine sand, finishing with 120 grit screen back or pad and vacuum thoroughly. Wipe floor with Urethane Coatings THINNERS. Test for compatibility by applying MONOTHANE HS 50 GLOSS on a small section of floor first. If 'craters' or 'fisheyes' appear add 20mls of Urethane Coatings FLOWMAX Anti Rejection Fluid per Litre of MONOTHANE HS 50 GLOSS and stir thoroughly. Soon after application, inspect for rejections, and if necessary continue adding FLOWMAX in increments of 10mls per Litre until the surface is free from rejections or up to a maximum of 100mls per Litre of MONOTHANE HS 50 GLOSS.

**Application Orientation:** For interior flooring (including all species of timber, parquetry, cork, particle board) and concrete.

**Application Conditions:** Do not use MONOTHANE HS 50 GLOSS at temperatures below 10°C or above 30°C. On cold days for at least one hour prior to application warm MONOTHANE HS 50 GLOSS, by wrapping container in an electric blanket (temp setting 1) for up to 2 hours.

Do not use MONOTHANE HS 50 GLOSS if relative humidity is in excess of 85% AND/OR if the moisture content of timber is in excess of the Australian Standard (9 to 14%).

**Application Method:** Apply with short nap (6mm) Mohair or Micro-fibre roller, brush or lamb's wool applicator. Do not return unused material to the can/drum. Touch dry; 2.0 hours at 25°C and 50% relative humidity, however allow 6.0 to 7.0 hours to fully dry. **Reduced** temperature and/or **reduced** humidity **will** slow drying (extend time required to dry). Suitable for light foot traffic 24 hours after final coat.

**N.B.** If the coating does not sand to a fine white powder, leave for a further 12 hours between coats – In cold conditions, if possible & practicable operate artificial heating ([Radiator style] Column oil filed electric heaters are preferable - DO NOT operate heating equipment that utilise naked flames or red hot surfaces).

**New Floors:** Apply three coats as per all options below.

**Old Floors:** Apply two coats; 1<sup>st</sup> as per **SECOND COAT** options (a) or (b) below, then 2<sup>nd</sup> as per **THIRD COAT and/or Final Coat** below.

**FIRST COAT** - can be either (a) or (b) or (c);

(a) TIMBERSEAL – apply with a Mohair or Micro-fibre roller. Allow 40 to 60 minutes to dry, no sanding is required prior to application of second coat.

(b) DUOTHANE FAST A/DUOTHANE Part B - apply with a Mohair or Micro-fibre roller or lamb's wool applicator. Allow 90 to 120 minutes to dry. Lightly sand with 150 mesh screen-back and vacuum thoroughly before the next coat.

(c) MONOTHANE HS 50 GLOSS – apply with a Mohair or Micro-fibre roller or lamb's wool applicator. Allow 6.0 to 7.0 hours to dry. Lightly sand with 150 mesh screen-back, and vacuum thoroughly before the next coat.

**N.B.** MONOTHANE CATALYST may be added to the first and second coats of MONOTHANE HS 50 GLOSS to accelerate curing. Fine sand or buff between coats with 150 mesh screen back.

**SECOND COAT** – Apply Either (a) or (b);

(a) DUOTHANE FAST A/DUOTHANE Part B - apply with a Mohair or Micro-fibre roller or lamb's wool applicator. Allow 90 to 120 minutes to dry. Lightly sand with 150 mesh screen-back and vacuum thoroughly before the next coat.

(b) MONOTHANE HS 50 GLOSS – apply with a Mohair or Micro-fibre roller or lamb's wool applicator. Allow 6.0 to 7.0 hours to dry. Lightly sand with 150 mesh screen-back, and vacuum thoroughly before the next coat.

**THIRD COAT and/or Final Coat** – Apply a very even coat of MONOTHANE HS 50 GLOSS with a Mohair or Micro-fibre roller or lamb's wool applicator. Application of a consistent film thickness is critical to prevent stop and/or lap marks appearing as MONOTHANE HS 50 GLOSS dries.

**Important Notice:** Although MONOTHANE HS 50 GLOSS is not as subject to sheen variation when compared with reduced sheen products, for best gloss levels Urethane Coatings recommend;

1. Restrict air flow by sealing under and around doorways, windows, skirting boards, air conditioning ducts/central heating vents, chimneys, cooling fans of refrigerator motors, etc. In extreme cases (to restrict air flow and/or to control airborne dust) it may be necessary to seal over ceiling penetrations such as down lights, lighting roses and air circulation vents.
2. Maintain a wet edge at all times, otherwise a lap mark may appear after curing. As appropriate add 40 to 60mls of FLOWMATE Wet Edge Extender per Litre of MONOTHANE HS 50 GLOSS. N.B. FLOWMATE Wet Edge Extender and FLOWMAX Anti Rejection Fluid are compatible with each other and therefore, both together can be added to MONOTHANE HS 50 GLOSS, however do not exceed a combined total of 100mls per litre of MONOTHANE HS 50 GLOSS.
3. Some timber species, notably Brushbox, Blackbutt, and Cypress Pine secrete oils and waxes which may migrate to the surface of the coatings causing surface imperfections. The addition of FLOWMAX Anti Rejection Fluid may assist to alleviate this problem.
4. DO NOT apply reduced sheen products (MONOTHANE SEMI-GLOSS, MONOTHANE SATIN, and MONOTHANE MATT) directly over putty as the silica in the putty may react with the matting agent in MONOTHANE turning the putty white – ensure that at least one coat of MONOTHANE GLOSS separates putty from reduced sheen coats.
5. MONOTHANE HS 50 GLOSS is completely compatible with Urethane Coatings range of solvent based stains and accordingly MONOTHANE HS 50 GLOSS can be tinted with the addition of any Urethane Coatings stain colours and applied as a build coat under the final coat of MONOTHANE HS 50 GLOSS. Please refer to the Urethane Coatings WOOD STAINS Technical Data Sheet for addition rates and application techniques.

### **Maintenance:**

MONOTHANE HS 50 GLOSS requires 7 to 10 days to fully cure by absorbing moisture from the atmosphere. Avoid heavy foot traffic during this period. After the curing period, regularly sweep with a soft bristle broom or an antistatic mop and as appropriate wash with a mixture of '3 Litres of hot water to one cup of Methylated Spirit'. To look after the floor use mats - place a door mat outside each entrance and if possible a softer mat immediately inside each door - this will assist to remove any sand, grit and small stones from shoe-soles/feet, that when walked over the floor are abrasive, acting like sandpaper. We caution against the use of vacuum cleaners, particularly if the bristles are worn as the cleaning head may then scratch the floor. The frequency of cleaning is dependent on the level of traffic, amount of grit carried onto the floor, and activity of children, and pets etc. In high traffic situations application of a sacrificial wear surface may be considered, i.e. a polish to take the brunt of the traffic. Suitable polishes are; Urethane Coatings **PURASHINE**, Johnsons One Go, Reckitts Long Life, or Peerless Gemini. These polishes are water based and easily applied with a foam applicator. Allow at least 10 days for the MONOTHANE HS 50 GLOSS to cure before application of Polish. USE protective pads under legs of furniture and always avoid dragging furniture over the floor.

**Coverage:** 10m<sup>2</sup> per Litre.

**Thinning:** Thinning is not recommended, however Urethane Coatings THINNERS may be added if MONOTHANE HS 50 GLOSS has thickened, or if a higher coverage and a thinner coat is required.

**Clean Up:** Thoroughly wash all equipment with Urethane Coatings CLEANING SOLVENT. Dry roller, brush, and applicator before reusing.

**Packaging:** MONOTHANE HS 50 GLOSS is supplied in 4, 10 and 20 Litre Drums.

**Shelf Life:** MONOTHANE HS 50 GLOSS is best if used within 12 months from manufacture, when stored in unopened containers under normal conditions of temperature and humidity.

**Health & Safety Directions:**

For detailed Health and Safety information refer to the MONOTHANE Safety Data Sheet (SDS) or visit; [www.urethanecoatings.com.au](http://www.urethanecoatings.com.au)

Use this material in well ventilated conditions. Prevent skin contact by wearing impervious gloves. Avoid breathing of vapour as it may cause lung irritation. May irritate skin and eyes. Keep containers firmly closed when not in use. In case of spillage absorb into dry sand or dirt then remove from work area and complete disposal in responsible manner.

**Flammable:** MONOTHANE HS 50 GLOSS contains volatile and flammable solvents and when applying the contents adequate ventilation to the outside must be provided. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing electrical switches, etc.) must be eliminated in or near the working area. **DO NOT SMOKE.** Keep Drum closed when not in use.

**FIRST AID:**

**Eye Contact:** Irrigate affected eye(s) with copious quantities of water for 15 minutes ensuring eyelids are held open. Seek medical advice if any pain or redness develops or persists.

**Skin Contact:** Wash skin thoroughly with soap and water as soon as possible. Remove contaminated clothing and wash underlying skin. Launder clothing before re-use.

**Inhalation:** Inhalation of mists, fumes or vapour may irritate the nose or throat. Remove from area of exposure to fresh air, taking care to use respiratory protection so as not to expose self to hazard. If effects persist obtain medical assistance.

**Ingestion:** Rinse mouth with water. If swallowed, do NOT induce vomiting. Give glass of water. Seek immediate medical advice and/or call poisons information centre, (Australia: 131126).

**Precautionary Statement:** First Aid is generally not required, treat symptomatically. If medical advice is needed, have product container or label at hand. Keep out of the reach of children. Read label before use.

**Warranty:**

Written claims to be made to seller within 7 days of goods received. Urethane Coatings (UC) warrants its' products to be free of defects in materials, and within their manufacturing specification but makes no warranty as to application and installation. As methods of application and on site conditions are beyond the manufacturers' control and can affect performance, UC makes no other warranty, expressed or implied, including warranties of merchantability and fitness for a particular purpose. Urethane Coatings' sole obligation shall be, at its option, to replace, or refund the purchase of the quantity of Coatings proved to be defective and UC shall not be liable for any loss or damage including incidental or consequential damages arising from the use of UC products.

**PRODUCT IDENTIFICATION:**

<b>UN No.:</b>	1263	<b>D.G. Class:</b>	3	<b>CAS No.:</b>	PROPRIETARY
<b>HAZCHEM:</b>	3[Y]	<b>PACK. GRP.:</b>	III		
<b>Correct Shipping Name:</b>	Paint.	<b>Manufacturers MANCODE:</b>			URECOAT

**Notice to Readers:**

Urethane Coatings make no representation as to the completeness and accuracy of the data contained in this Technical Data Sheet. It is the user's obligation to evaluate and use this data, and to comply with all relevant Commonwealth, State and Local Government laws and regulations. Urethane Coatings shall not be responsible for loss, damage or injury resulting from reliance upon or failure to adhere to any recommendations contained herein, from abnormal use of the material, or from any hazard inherent in the nature of the material.

**End of Technical Data Sheet**