



# MIROTONE

Leading the way in coating systems since 1938

## Data Sheet

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## MIROLAC NC 3130 Pigmented Undercoat



### Important Information

Mirotone only warrants the quality of the product in the can. It is your responsibility as the user, before application, to ensure that the coating system meets your requirement and is fit for the intended purpose.

### Environmental Health & Safety



- **Formaldehyde Free**
- **Free of Toxic Heavy Metals**
- **Complies with AS/NZS ISO 8124.3:2003 (Childrens Toy Safety Requirements)**
- **Complies with BS/EN71-3:1995 (Safety of Toys) Part 3. Specification for migration of certain elements.**

### Product Description

MIROLAC NC 3130 is a user friendly, easy to apply single pack nitrocellulose pigmented lacquer undercoat that provides an excellent sanding base for nitrocellulose lacquer topcoats. Fast dry and excellent free sanding means reduced time between coats. Good build properties allow the number of coats to be kept to a minimum. MIROLAC NC 3130 when used as an undercoat for [MIROLAC NC 3150 topcoat](#) will supply a sound base that will isolate waxes in medium density fibreboard (MDF) reducing problems experienced with wax extraction. For interior use only.

### Features & Benefits

<b>Formaldehyde Free:</b>	Safer for the applicator. Zero formaldehyde emissions in rooms in which coated articles are installed or used results in improved internal air quality.
<b>Fast Dry:</b>	Enables increased production throughput.
<b>Minimises risk of wax extraction:</b>	This unique formula provides a fast drying, smooth, uniform finish over Medium Density Fibreboard (MDF) and High Density Fibreboard (HDF).
<b>High Coverage:</b>	MIROLAC NC 3130 can be tinted to achieve improved coverage that reduces the need to apply extra coats thereby reducing material costs.
<b>Free Sanding:</b>	Powders easily, ensuring the quickest time to sand, reduced labour cost and best possible surface for topcoating.
<b>Reduced Wastage:</b>	The addition of left over MIROLAC NC 3150 topcoat into MIROLAC NC 3130 undercoat not only improves coverage but also reduces waste.

### Typical Applications

- Domestic Furniture
- Children's Toys & Furniture
- Built-in Wardrobes

### Product Properties

<b>Colour</b>	White
<b>Tinted Undercoat</b>	A maximum of 30% by volume of MIROLAC NC 3150 topcoat may be added to MIROLAC NC 3130 to tint this undercoat. See table for detailed mixing instructions.
<b>Coloured Undercoat</b>	If a pre-coloured undercoat is required, Mirotone can supply a range of coloured undercoats to suit your requirements. See "Tinted Undercoat" section for the colours available.
<b>Gloss Level</b>	Undercoat
<b>Vertical Hang-Up</b>	Good
<b>Solvent Resistance</b>	Good
<b>Sandability</b>	Good
<b>Build</b>	Good
<b>Water Resistance</b>	Good
<b>Hardness</b>	Good
<b>Leveling &amp; Flow</b>	Very Good
<b>Sink Back</b>	Minimal

### Application Methods

<b>Suction Gun</b>	Use 1.5 to 2mm (59 - 79 thou) orifice with 350-400kpa (50-55 psi).
<b>Pressure Pot</b>	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.
<b>Airless Spray</b>	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).
<b>Air Mix Guns</b>	Settings similar to airless spray with the air-assisted regulator pressure at 70-90kpa (10-15psi).

Mirotone recommends a range of spray equipment. Please contact your Mirotone representative for information on equipment for your application.

### Recommended MIROSOL® Thinners

Thinner Rating Guide				Pack Size Available			
••• Highly Recommended		•• Recommended		• Approved			
Speed of Dry (Listed Fastest to slowest)	Rating	MIROSOL Thinner	Aromatic Free?	4 Litre	20 Litre	60 Litre	205 Litre
Ultra Fast	••	MIROSOL 1234	Yes		*	*	
	••	MIROSOL 1286	No		*	*	*
Fast	•••	MIROSOL 1222	No	*	*	*	*
	••	MIROSOL 1280	No		*	*	
	••	MIROSOL 1232	Yes	*	*	*	
	•••	MIROSOL 1220	Yes	*	*	*	*
	•••	MIROSOL 1225	Yes		*	*	
	••	MIROSOL 1217	Yes	*	*		
Medium	•••	MIROSOL 1252	Yes	*	*		
	•••	MIROSOL 1294	Yes	*	*	*	
	••	MIROSOL 1263	No	*	*	*	
	••	MIROSOL 1265	Yes	*	*	*	
Slow	••	MIROSOL 1266	Yes	*	*	*	
	•••	MIROSOL 1242	No	*	*	*	
	••	MIROSOL 1260	Yes	*	*	*	
Ultra Slow	••	MIROSOL 1218	No	*	*	*	
Specialty Reducers	••	MIROSOL 1297 Retarder	No	*			
<b>Thinner Reduction Rate</b>							
Thin 25-40% depending upon application requirements.							
<b>Note:</b> In hot or draughty conditions Mirotone recommends that no more than 10% Ultra Slow Thinners is added. Exceeding this amount will retard the drying and could lead to problems with sanding, printing and blocking. Use faster thinners to achieve required viscosity and then use (only if required) a small amount of Ultra Slow Thinner to improve flow and levelling.							
<b>Application Viscosity &amp; Wet Film Thickness</b>							
Spray only in properly constructed and compliant spray booth.							
<b>Spraying Viscosity:</b> 45-55 seconds BS4 Flow Cup at 25°C.							
<b>Wet Film Thickness:</b> 100-150 microns wet film thickness per coat. Application above 150 microns may cause longer drying time.							
<b>Approximate Drying Times @ 20°C</b>							
<b>Dust Free:</b>	5 minutes						
<b>Touch Dry:</b>	10-15 minutes						
<b>Sanding:</b>	30 - 60 minutes						
<b>Hard Dry:</b>	1 - 2 hours						
<b>Block Stacking:</b>	24 hours						
<b>Full Cure:</b>	7 days						
<b>Force Drying Procedure</b>							
<b>Flash Off:</b>	5 minutes @ 20°C						
<b>Force Dry:</b>	20 - 30 minutes @ 40-60°C (dependent on airflow)						
<b>Cool Down:</b>	15 minutes @ 20°C						
The above temperatures are dependent on airflow.							
<b>Shelf Life</b>							
MIROLAC NC 3130 undercoat has 12 months shelf life when stored in sealed containers below 35°C.							
<b>Coverage (theoretical)</b>							
4-5 m <sup>2</sup> per litre when applied with a conventional spray gun at 150 micron wet film build applied at 50 seconds BS4 application viscosity. These measurements are dependent on the application equipment / gun set-up and the articles being coated.							
<b>Note:</b> The coverage above is the maximum rate possible and will vary dependent on the application equipment and total wastage.							
<b>Packaging</b>							
<b>Product</b>				<b>Can Size</b>	<b>Net Contents</b>		
MIROLAC NC 3130				4 Litre 20 Litre	4 Litre 20 Litre		
<b>Application Equipment Clean Up</b>							



**Note:** Low temperatures or heavy film thickness will retard drying times. Improved hold can be achieved if MIROLAC NC 3130 is left to dry overnight before sanding and topcoating.

Clean all equipment immediately after use with any of the MIROSOL thinners listed below. Do not leave MIROBILD AC acid catalysed, MIROTHANE PU polyurethane or MIROPOL PE polyester coatings in your equipment longer than the recommended pot life as this could result in the equipment becoming unusable.

#### Gun / Equipment Wash Rating Guide

••• Highly Recommended      •• Recommended      • Approved

Speed of Dry (Listed Fastest to slowest)	Rating	Thinner	Aromatic Free?	Pack Size Available			
				4 Litre	20 Litre	60 Litre	205 Litre
Ultra Fast	•••	MIROSOL 1208	Yes		*	*	*
	••	MIROSOL 1215	Yes		*	*	*
	•••	MIROSOL 1234	Yes	*	*	*	*
	•	MIROSOL 1286	No		*	*	*
Fast	•	MIROSOL 1222	No	*	*	*	*
	•••	MIROSOL 1224	Yes	*	*	*	
	••	MIROSOL 1280	No	*	*	*	
	•••	MIROSOL 1232	Yes		*		
	•	MIROSOL 1220	Yes	*	*	*	*
	•	MIROSOL 1225	Yes		*		
	•••	MIROSOL 1217	Yes	*	*		
Medium	•	MIROSOL 1252	Yes	*	*		
	•	MIROSOL 1294	Yes	*	*	*	
	•	MIROSOL 1263	No	*	*	*	
	••	MIROSOL 1265	Yes	*	*	*	
Slow	••	MIROSOL 1266	Yes	*	*	*	

#### Application System

##### Surface Preparation

All wood and wood related substrates must be free from dust, grease, dirt and all other contaminants before proceeding. Contaminants may be removed by washing the substrate with MIROSOL 1231 Medium Thinner which is ideal for removing wax and grease. Fill all wood defects with MIROPUTTY 916 water based wood filler (i.e. cracks, holes, etc) or fill open grain woods with MIROFIL 1702, if full high build finish is required.

##### Sanding

Wood Substrates - Sand to a smooth even finish using 180-240 grit 3M Production Fre-cut paper.  
MDF Boards - Sand to a smooth even finish using 240-320 grit 3M Production Fre-cut paper.  
Remove all sanding dust using an air gun and clean lint free cloths.

##### Undercoating

Undercoat substrate with MIROLAC NC 3130 as per the instructions on this data sheet.  
Undercoating MDF: When undercoating raw MDF MIROLOK SB 3511 is recommended to reduce problems associated with wax extraction and stress cracking on routed components and edges. Apply one light coat then allow a 10 minute interval before sanding with 320 grit fre-cut paper to remove any raised fibres from the MDF. Sand MIROLOK SB 3511 to a smooth finish and apply MIROLAC NC 3130 in even coats to achieve the desired film build, maximum total wet film thickness 100-150 WFT per coat.  
Allow a minimum of one hour to dry and then sand with 280-320 grit 3M Production Fre-cut paper.  
Remove all sanding dust using an air gun and clean lint free cloths.

##### Topcoating

Topcoat with MIROLAC NC 3150 topcoat as per the instructions on the relevant data sheet.

#### Tinted Undercoat

MIROLAC NC 3130 undercoat can be purchased in one of the following colours below:

- 2060 Light Grey
- 5071 Pastel Yellow
- 7024 Rusty Pink
- 8049 Sky Blue
- 9041 Pale Green
- 0001 White

To create your own tinted undercoat it is possible to add left over MIROLAC NC 3150 topcoat into MIROLAC NC 3130 undercoat as the following addition rate (amount below make one litre of coloured undercoat):

MIROLAC NC 3130 White Undercoat	MIROLAC NC 3150 Pigmented Topcoat	Thinner amount
70% : 700ml	30% : 300ml Max	30% : 300ml

#### Warnings

**!** **Follow Directions:** Carefully read the contents of this Data Sheet and the associated Material Safety Data Sheet (MSDS). Please do not apply this product unless:

- You have a Material Safety Data Sheet (MSDS) in your possession.
- You fully understand these important documents, and
- You are prepared to follow all directions.

**!** **Not Recommended:** This product is not recommended for the following applications:

- Exterior exposure
- Bar and counter tops
- Kitchen bench tops
- Bathroom vanity tops

- High humidity and / or wet areas

**! Harsh In-Service Environments:** For harsh in-service environments Mirotone recommends the use of MIROTHANE PU 5545 Clear sealer with MIROTHANE PU 5555 Clear topcoat or MIROTHANE PU 5625 or MIROPOL PE 5110 & 5111 pigmented undercoat with MIROTHANE PU 5650 or 5605 pigmented topcoat.

**! Damage caused by sharp objects:** Coatings can be damaged by sharp objects. Due care should be taken in harsh in-service environments to protect the coating e.g. use placemats, coasters, table cloths or other protective coverings.

**! Recommended Coating System:** For superior coating properties and in-service performance, Mirotone recommends the application of one sealer coat followed by two coats of an approved topcoat. Alternatively for high volume production environments a two sealer / one topcoat system may be used but this will lead to reduced physical properties of the coating system. In clear coating systems excessive application of sealer or topcoat may result in milky or cloudy appearance in the final finish.

**! MIROSOL Thinners:** The use of any thinner other than the approved list on this data sheet will void any warranty that Mirotone may offer. Refer to Mirotone's Technical Bulletin "Mixed Coating Systems".

**! High Humidity and Moisture In-Service Environments:** 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 sharp 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 during sanding and coating should always be given to sharp edges as the coatings do not build as 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 the following may result:

- Loss of adhesion to the wood
- Cracking or veneer checking of the wood
- Frying of the coating system, particularly with Acid Catalysed systems

**! High Humidity at Time of Application:** Application of coatings at high humidity will:

- Speed up the drying process and reduce the pot life of polyurethane coatings.
- Increase the risk of blooming (whitening).
- Blooming may occur if the coating is applied over damp wood or exposed to water or dew during the first hour of drying.

**! Inter-coat Adhesion:** To ensure sound inter-coat adhesion, thoroughly sand between coats. To reduce the potential for adhesion failure in the field, Mirotone strongly recommends it's customers carry out regular and appropriate quality control testing of their production output.

**! Bridging:** On routed MDF panels and doors DO NOT exceed the recommended wet film thickness, as cracking or bridging of the dry film in the grooves may occur.

**! Gloss Level:** Care must be taken to apply a uniform wet film thickness (WFT). Gloss level is dependent on WFT and will be lower at low WFT and higher at high WFT.

**! Handling:** The transfer of oils or fats from the skin to the surface of the coating may leave visible finger prints on dry coatings. The lower the gloss level and the darker the colour the more visible the finger prints will be. Therefore use of dark low gloss colours should be carefully considered. In most cases Mirotone's Sprayglow will remove finger prints.

**! Buffing:** To improve gloss level of topcoats use light hand or machine buffing/polishing with the 3M Perfect IT polishing system. If sanding of the coating is required to remove surface defects, the panel must be sanded and resprayed in a dust free environment.

## Health & Safety

Refer to Material Safety Data Sheet (MSDS). MSDS sheets are available at [www.mirotone.com](http://www.mirotone.com)

**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.**

**Engineering Controls:** Avoid inhalation of vapour or sanding dust by maintaining adequate ventilation. Avoid pockets of vapour. This is normally achieved by applying in a well-exhausted spray or sanding booth complying with AS 4114. If inhalation risk exists (e.g. spraying) the operator must wear a half-face respirator complying with AS1716 (type A/P) and use in accordance with AS1715.

**Personal Protection:** Contact with any chemical should be avoided. Avoid contact with skin and eyes, and avoid breathing the vapour or spray mist. Wear suitable protective clothing including rubber or PVC gloves and safety goggles. When using, do not eat nor smoke.

## Mirotone Accreditations

**Research Laboratory:** Mirotone's head office research laboratory in Sydney, Australia holds N.A.T.A. accreditation No. 865 under ISO/IEC 17025:1999 General Requirements for the Competence of Testing and Calibration Laboratories.  
N.A.T.A. - National Association of Testing Authorities

**Quality System:** Mirotone is N.A.T.A. certified to AS/NZS ISO 9001:2000 Quality Systems for design and manufacturing.

## Mixed System Policy

### A Mixed System is:

Where any coating or additive manufactured by another coating manufacturer is applied under, between, in, or on top of, coatings manufactured by Mirotone. [Additives may include thinners, retarding solvents, hardeners, flow additives, stains or catalysts]; or

Where products manufactured or supplied by Mirotone are used in a manner not approved or recommended by Mirotone on its labels or Data Sheets.

**Policy:** Mirotone will not recognise any warranty claim from customers or third parties if any Mirotone product has been used in a Mixed System. Mirotone can only warrant the quality of its own range of coatings when used in strict accordance with the recommended coating systems thinners and additives stated on Mirotone's labels and Data Sheets.

## Limitation of Liability

**This Data Sheet is based on information in Mirotone's possession at the "Date of Issue" above. Later experience may lead to amendments. Users should check with Mirotone to ensure that this Data Sheet is still current.**

The information contained in this Data Sheet is based on data appraised in our Laboratories and on our own research, and that of others whose work we

believe is reliable. Due to possible differences between controlled laboratory test conditions and methods, and actual application conditions and methods, coupled with possible differences in interpretation of results, the user of this product must satisfy himself that the end result obtainable under his particular application conditions meets his requirements. Special attention is directed to the problem of chemical compatability, as Mirotone can control only the quality and formulation of its own materials. Mirotone has no control over quality, formulation or consistency of other manufacturers' products or the substrate to which its product is applied. Therefore Mirotone supplies its products only on condition that the consumer himself is satisfied as to the performance of the product in meeting his particular requirements.

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