



# Rhino Linings®

**PREMIUM PROTECTION**



## Rhino Hybrid HB1140

SIDE-A – ISO

SIDE-B - Resin

**Revised Date: 16/05/2023**

This TDS Replaces All Previous Versions

### DESCRIPTION

Rhino Hybrid HB1140 is an Australian-made one to one-volume ratio, two-component, 100% solids non-VOC, exothermic, rapid curing, elastomeric hybrid polyurea lining system. The lining thickness varies based on application, typically at least 2mm up to unlimited thickness. It can be sprayed up to 85% humidity.

### FEATURES & BENEFITS

- Robust application window with the ability to spray at low temperatures and high humidity.
- High tensile strength and tear strength properties
- Very good abrasion and impact resistance
- Spray-on application creates a monolithic, seamless lining that conforms to any shape and size.
- Excellent corrosion resistance
- Good noise reduction
- Easy to texture.
- Bonds to virtually all substrates of any dimension, including metals, wood, concrete, and fibreglass.
- Lining is stable from -20°C to 80°C.

### TYPICAL USES

- Excellent general-purpose industrial lining.
- Material delivery systems where a seamless, flexible system is essential.
- Floor and wall protection in industries such as food processing, food storage, veterinary, production area and laboratories
- Secondary containment as a monolithic, impermeable lining for industrial plant, agriculture applications and roof waterproofing.
- To reduce noise from vibration and impact.
- Industrial flooring subject to heavy vehicle traffic
- Application to surfaces subject to vibration, expansion, contraction, movement, flexing, abrasion, and impact.
- Industrial and mining applications where rapid turn-around is critical.

### NOT RECOMMENDED FOR

- Sustained temperatures below -20°C or above 80°C.
- Application to high-density polyethylene or thermoplastics.
- Do not apply to concrete with curing or sealing membranes.
- Do not apply to substrates affected by more than 5% moisture content.
- Do not apply to concrete less than 28 days old.
- **NOTE – Substrate temperature must be 3 deg C above the dew point prior to application.**

### TYPICAL PHYSICAL PROPERTIES:

|                          | Test         | Result |
|--------------------------|--------------|--------|
| Hardness (Shore D)       | ASTM D-2240  | 40±5   |
| Tensile Strength (psi)** | ASTM D-412   | 1429   |
| Elongation (%)**         | ASTM D-412   | 200    |
| Compressive Yield (MPa)  | ASTM D695-02 | 5.9    |

\*\*Properties above were checked at a recognised industry standard thickness of 3.18mm (1/8 inch)

### CHEMICAL RESISTANCE

Contact Rhino Linings' technical/sales department for details.

| CHEMICAL PROPERTIES*:   | Standard Test | Isocyanate (A) | Resin (B) |
|-------------------------|---------------|----------------|-----------|
| Solids by Volume/Weight |               | 100%           | 100%      |

|   |                  |                   |
|---|------------------|-------------------|
| Mix Ratio, parts per volume                           | 1                | 1                 |
| Mix Ratio, parts per weight                           | 109              | 100               |
| Gel Time, seconds                                     | 8                |                   |
| Tack Free, seconds                                    | 12-18            |                   |
| Recoat, max   | 4hrs             |                   |
| 95 – 99% Cure Time                                    | 24 hrs           |                   |
| Theoretical Coverage                                  | 1sqm at 1mm = 1L |                   |
| Odour   | Mild             | Amine             |
| Base Colour   | Clear/ Strew     | Amber/ Dark Brown |
| Shelf Life - Unopened Containers and correctly stored | 12 months        | 12 months         |

**After 12 months, pretesting is required before use.**

\*Properties were tested at 25°C

### COMMON SUBSTRATES

Concrete, fibreglass, metals, and wood

### VOLATILE ORGANIC COMPOUND

Zero VOC

### DRY FILM THICKNESS RANGE

Varies based on application, typically a minimum of 2.0mm up to unlimited thickness.  
Automotive Coating Thickness (Ute bed): Floor/Tailgate 4+ mm, Walls/Rail 2+ mm.

### STORAGE AND PACKAGING

Components should be stored in sealed containers in a dry area away from direct sunlight at 15°C – 30°C.

**Constant 25°C is recommended.**

Available in 20L pails & 200L drums only.

### BASE MATERIAL COLOUR

Isocyanate – Clear/ Strew.

Resin – Amber or Dark Brown

### COLOUR OPTIONS

Standard colours - Natural & Black. Custom colours are available by special order.

### PROCESSING CHARACTERISTICS

The system settings required to achieve quality spray application vary depending on environmental and substrate conditions. The following recommended parameters will help ensure optimum quality.

| Equipment Used     | Spray Pressure    | Tank- Drum Temperature | Process Temperature | Mix Module        |
|--------------------|-------------------|------------------------|---------------------|-------------------|
| Graco EXP-1; E-XP2 | 2000psi – 3500psi | 45°C - 50°C            | 55°C - 65°C         | AR2929 or Greater |
| Graco E-10HP       | 1800psi – 2500psi | 45°C - 50°C            | 55°C - 65°C         | AR2020 – AW2222   |

NOTE – Gun type fusion Air Purge (AP) or Cartridge gun (PC). Processing temperatures are a guide only; please get in touch with the Rhino Linings Technical Department for further details.

### SAFETY PRECAUTIONS

**Health Considerations:** consult Rhino Linings Safety Data Sheets.

This chemical system requires the use of proper safety equipment and procedures. Please follow the Rhino Linings® product SDS and Safety Manual for detailed information and handling guidelines.

**For Your Protection:** The information and recommendations in this publication are, to the best of our knowledge, reliable. Suggestions made concerning the products and their uses, applications, storage, and handling are only the opinion of Rhino Linings Corporation. Users should conduct their own tests to determine the suitability of these products for their own purposes and of the storage and handling methods herein suggested. The toxicity and risk characteristics of products made by Rhino Linings Corporation will

necessarily differ from the toxicity and risk characteristics developed when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to ultimate end-users and processors.

Because of numerous factors affecting results, **Rhino Linings Corporation makes no warranty of any kind, express or implied**, other than that the material conforms to its applicable current Standard Specifications. Rhino Linings Corporation hereby disclaims all other warranties, including but not limited to those of merchantability or fitness for a particular purpose. No statements made herein may be construed as a representation or warranty. The liability of Rhino Linings Corporation for any claims arising from or sounding in breach of warranty, negligence, strict liability, or otherwise shall be limited to the purchase price of the material.

