



# Rhino Linings®

## PREMIUM PROTECTION



## RhinoGuard 2185®

SIDE-A – ISO

SIDE-B - Resin

Revised Date: 06/07/2020

This TDS Replaces All Previous Versions

### DESCRIPTION

An elastomeric exothermic, rapid curing 100% solids polyurethane (zero VOCs)

### FEATURES AND BENEFITS

- High elongation
- Very good slip resistance
- Good noise reduction
- Excellent weather resistance
- Excellent abrasion resistance
- Good chemical resistance
- Potable Water Certified AS/NZ 4020:2005, Drinking Water
- Excellent impact resistance
- Stable from -20°C to 80°C
- Excellent corrosion resistance

### TYPICAL USES

- Drinking water tank linings
- Lining the internals of pipes
- Casting material for material handling equipment such as chutes, hoppers, rollers, etc.
- Skip bin & Vac truck linings

### NOT RECOMMENDED FOR

- Sustained temperatures below -40°C or above 80°C.
- Application to high density polyethylene or thermo plastics.
- Do not apply to concrete with curing or sealing membranes.
- Do not apply to substrates affected by moisture content in excess of 5%.
- Do not apply to concrete less than 28 days old
- Avoid applying in conditions with high humidity.
- **NOTE** – Substrate temperature **must** be 3 °C above the dew point prior to application

### TYPICAL PHYSICAL PROPERTIES

Hardness (Shore A)	88A±5	ASTM D-2240
Tensile Strength (psi)*	1800 – 2100	ASTM D-412
Elongation (%)	220 – 280	ASTM D-412
Compressive Strength (psi)	800	ASTM D-695-96
Taber Abrasion Resistance (mg of loss/1000 cycles)		
CS17 Wheel: 1000 grams weight	15 – 20	ASTM D-4060
Tear Resistance (pli)* Die C	200 – 250	ASTM D-624
Ross Flex (% crack growth per 50,000 cycles)	0	ASTM FIA-308
Coefficient of Friction on Steel		
Static	0.84	ASTM D-1894-95
Kinetic	0.76	ASTM D-1894-95
Specific Gravity (grams/cc)	1.06 – 1.08	ASTM D-792
Water Absorption (%)	≤1.6	ASTM D-570
Dielectric Strength (volts/mil)	300	ASTM D-149
Volume Resistancy (ohm/inches)	6 x 10 (12)	ASTM D-257
Dielectric Constant (MHz)	5.4	ASTM D-150
Dissipation Factor (MHz)	0.058	ASTM D-150
Cathodic Disbonding	Pass	ASTM G-8

\* Properties were checked of RhinoGuard 2185 polyurethane lining 3.18 mm thickness.

### CHEMICAL RESISTANCE

Good resistance to many routine chemicals such as: weak acids, weak alkalis, oils and cleaning agents. For specific applications and/or information, consult with Rhino Linings® representatives for further information.

## CHEMICAL PROPERTIES

Initiation	10-20 secs
Gel Time	20-30 secs
Tack Free time	60 secs
Chemical temperature may vary processing times	
Re-Coat time (max without priming)	6 hours
Mix ratio	
Chemical temperature may vary processing times	
Cure time – 95-99%	24 hours
Re-Coat time (max without priming)	6 hours
Mix ratio 2-1	

## COMMON SUBSTRATES

Metals, wood, concrete, brick, fibreglass, some composites, and geotextiles.

## VOLATILE ORGANIC CONTENT

Zero VOC

## DRY FILM THICKNESS RANGE (subject to application)

Varies based on application, typically used at a minimum of 2mm up to unlimited thickness.

## STORAGE AND PACKAGING

RhinoGuard 2185 should be stored in sealed containers, in a dry area away from direct sunlight at 15°C – 30°C.

**Constant 25°C recommended.**

Part A – Isocyanate: 12 months, unopened. 250kg Drums

Part B – Resin: 12 months, unopened. 204kg Drums

## BASE MATERIAL COLOURS

Isocyanate – yellow or light straw colour.

Resin – Opaque

## COLOUR OPTIONS

Black. Other colours available on request. RhinoGuard 2185 is UV stable but being an aromatic coating, colour shifting will occur.

## RE-APPLICATION PROCEDURES

Clean old RhinoGuard 2185 so it is free from contaminants, cleaning with biodegradable foaming agents or similar if necessary. Once cleaned and dry, abrade surface to gain a rough scratched profile (80 Grit sandpaper or nylon cup brush). Remove all dust with air and wipe substrate with acetone then prime using RhinoPrime 251 primer to TDS.

## PROCESSING CHARACTERISTICS

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

Equipment Used	Spray Pressure	Process Temperature	Spray Gun	Mix Module
Rhino MK-15	N/A	25°C - 35°C	Rhino 2:1 Gun	1/4"–3/8" static Mixer

(Tested in cups, 161g combined @ 25°C)

Initiation 10-20 secs; Gel time 20-30 secs; Tack Free/Solid <60 secs; 95-99% cure 24 hours.

## SAFETY PRECAUTIONS

**Health Considerations:** consult Rhino Linings Material Safety Data Sheets. The uncured components of Rhino Linings RhinoGuard 2185 can cause irritation to the eyes, skin, mucous membranes and are harmful if swallowed. When handling, avoid contact with eyes and skin (especially open cuts). In case of contact, immediately wash off with plenty of water for at least fifteen (15) minutes. For eyes, obtain medical attention. Always wash hands before eating. Obtain immediate medical attention in case of ingestion. RhinoGuard 2185 contains isocyanates and may cause allergic skin or respiratory reactions. Do not use if you have chronic breathing problems (asthma) or if you have ever had reactions to isocyanates. When applying RhinoGuard 2185, avoid breathing vapours. Fresh air-supplied standard painter's hood or full-face respirator must be worn by all personnel entering the area where RhinoGuard 2185 is being applied until all

vapours have been exhausted. In case of extreme exposure or adverse reaction, remove affected personnel to fresh air immediately and obtain medical help.

**Important: Consult the Rhino Linings Material Safety Data Sheets:** Read and follow warning labels on all components. For professional use only. Follow cautions and handling guidelines in Rhino Linings Technical Manual. The information herein is believed to be reliable, but unknown risks may be present. All warranties of any kind, expressed or implied, including warranties of fitness for a particular purpose, are specifically disclaimed.

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