



Rhino Linings®

PREMIUM PROTECTION



RhinoGuard® 2195

SIDE-A – ISO

SIDE-B - Resin

Revised Date: 01/02/2010

This TDS Replaces All Previous Versions

DESCRIPTION

Elastomeric Polyurethane 100% solids (Zero VOCs.).

FEATURES AND BENEFITS

RhinoGuard 2195 is a two-component, rapid curing, elastomeric polyurethane heavy-duty lining system.

- Industrial grade two-component, 100% solids, exothermic, rapid curing, elastomeric polyurethane membrane lining.
- Lining thickness varies based on application, typically minimum of 2.0mm up to unlimited thickness.
- High tensile strength and tear strength properties.
- Very good abrasion and crush resistance.
- Good chemical resistance.
- Excellent corrosion resistance.
- Spray-on application creates a monolithic seamless lining, which conforms to any shape and size.
- Bonds to virtually any substrates of any dimension, including all metals, concrete, wood and fibreglass.
- Elastomeric properties allow for application to surface subject to extreme vibration, movement, flexing, abrasion, and impact.
- Reduces noise from vibration and impact.
- Stable from -40°C to 80°C

TYPICAL USES

- Heavy vehicle traffic applications – loading docks, warehouse flooring, fertiliser storage bins
- Materials handling - Abrasion and corrosion protection in chutes, hoppers, bins
- Power pole ground level corrosion protection
- Pipe and tank coating for in ground applications
- Casting of wear and impact plates
- Skip bins and Truck beds

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 deg C above the dew point prior to application

TYPICAL PHYSICAL PROPERTIES

Hardness (Shore A)	95±5	ASTM D-2240
Tensile Strength (psi)*	2000 – 2200	ASTM D-412
Compressive Yield (MPa)	5.75	ASTM D695-02
Elongation (%)*	75 – 85	ASTM D-412
Flexural Modulus (psi)	2400 – 2800	ASTM D-790
Taber Abrasion Resistance (mg of loss/1000 cycles)		
CS17 Wheel; 1000 grams weight	20 – 25	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
Specific Gravity	1.06 – 1.08	ASTM D-792
Water Absorption (%)	≤1.5	ASTM D-570
Dielectric Strength (volts/mil)	300	ASTM D-149
Volume Resistance (ohm/inches)	6 X 10 (12)	ASTM D-257
Dielectric Constant (MHz)	5.4	ASTM D-150
Dissipation Factor (MHz)	0.058 A	ASTM D-150

*Properties were checked using RhinoGuard 2195 at 3mm thick.

CHEMICAL RESISTANCE

Good resistance to many commercial and industrial chemicals such as acids, alkalies, oils and cleaning chemicals. For specific applications and information, please consult with Rhino Linings Technical department.

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 – 98%	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

Varies typically based on application 2.0mm to unlimited.

STORAGE AND PACKAGING

Store product in a dry environment away from direct sunlight. Recommended storage temperature is 25C.

Part A - Isocyanate: Twelve months, unopened. 75kg and 250kg Drums.

Part B - Resin: Twelve months, unopened. 62kg and 204kg Drums.

BASE MATERIAL COLOURS

Isocyanate - amber/dark brown. Resin - opaque.

COLOUR OPTIONS

Standard colour - natural. 8 standard colours available by order.

RE-APPLICATION PROCEDURES

Clean old Polyurethane 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

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 the Rhino Linings® Material Safety Data Sheets.

The uncured components of RhinoGuard 2195 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 2195 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 2195, avoid breathing harmful vapors. Fresh air-supplied standard painter's hood or full-face respirator must be worn by all personnel entering the area where RhinoGuard 2195 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. RhinoGuard 2195 components are combustible liquids Class IIIB. Store and transport according to regulation.

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 Reference 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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