

Rhino ArmaFloor[®] AF500

Technical Data Sheet

Part A Isocyanate - ArmaFloor[®] AF500

Part B Resin - ArmaFloor[®] AF500

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DESCRIPTION:

ArmaFloor[®] AF500 is a two-component, rapid curing, hybrid polyurea coating system designed as a Decorative Finish yet durable coating for floors and other applications. Formulated with aliphatic chemistry, ArmaFloor[®] AF500 is colour stable allowing it take UV exposure without colour shifts seen with other coating systems such as epoxies. ArmaFloor[®] AF500 is a 1:1 mix ratio system with sufficient pot life to be rolled, or sprayed with Rhino Linings[®] application equipment.

FEATURES & BENEFITS:

- Fast cure allowing rapid turnaround time; under normal conditions, light foot traffic within 3-5 Hours, return to service within 24 hours.
- Robust application window with ability to apply at low temperatures and high humidity.
- Achieve variety of colours, patterns, logos, using decorative flakes, particles, or signs.
- Excellent abrasion and impact resistance.
- Excellent chemical resistance.
- Excellent UV resistance and high gloss characteristics.
- Bonds to virtually all substrates, including metals, woods, concrete, and fibreglass.
- Low VOC's; environmentally friendly.

APPLICATIONS:

- Excellent durability and aesthetics for floor, equipment and other coatings including:
 - Garage floors
 - Laboratories
 - Restaurant floors
 - Airplane hangars
 - Entry and lobby areas
- Creates a durable, seamless lining which conforms to any shape and size.

TYPICAL PHYSICAL PROPERTIES:

Hardness		
- Pencil	2H	
- Pendulum	160	
Tensile Strength (psi)*	6,500	ASTM D-412
Elongation (%)*	6-8	ASTM D-412
Impact Resistance, lbs (kg)	100 (45.4)	
Taber Abrasion Resistance	50-60	ASTM D-4060
- (mg of loss/1000 cycles) CS17 Wheel; 1000 grams weight		
Specific Gravity (grams/cc)	1.0	ASTM D-792
Water Absorption (%)	0.5	ASTM D-570
Water Vapour Transmission		ASTM E-96
- Rate of Transmission, grains/h ft ²	0.58	
- Permeance (perm, in – lb)	1.39	
Theoretical VOC	0.82	
QUV Weatherometer, 4,000 hours		
- Oxidation	No effect	
- Loss of gloss	No effect	
- Blistering	No effect	
- Yellowing	No effect	

* Properties were checked on dry films at 0.127 to 0.152 mm (5 – 6 mils) thick, air dried for 7 days.

CHEMICAL RESISTANCE:

Excellent resistance to many chemicals. For a 7 day immersion in:

- Gasoline	No effect
- Brake Fluid	No effect
- Skydrol	No effect
- Coolant or Anti-Freeze	No effect
- Ammonium hydroxide	No effect

SURFACE PREP OF ARMAFLOOR® AF500:

See Rhino Linings® Application Standards for full surface prep instructions. Substrate should be clean, dry and free of oils and other contaminants. Rhino recommends diamond grinding or shot-blasting for creating surface profile. **Acid or wet etching is not recommended.**

THICKNESS & COVERAGE RATE:

ArmaFloor® AF500 is typically applied in two coats, a pigmented Base coat and clear Final coat. Decorative Flakes (paint chips) or coloured quartz aggregate are broadcast into the Base coat. Total coating thickness is typically 0.38 to 0.51 mm (15 to 20 mils) with Decorative Flakes. See Rhino representative for your specific application. Coverage Rate for ArmaFloor® AF500 is 5-6²m/L— maybe slightly less on base coat to gain coverage on some substrates. Second final coat coverage rate is approximately 8²m/L.

STORAGE & SHELF LIFE:

ArmaFloor® AF500 components should be stored in sealed containers at 16⁰C -32⁰C in a dry area.

Part A - Isocyanate: Six months, unopened, stored properly

Part B - Resin: Twelve months, unopened, stored properly

COLOUR OPTIONS:

Colour - Clear

Standard colours available: grey, beige and terra cotta.

Custom colours are also available by special order.

Decorative Flake (paint chips): up to 6 Std colours; Decorative Quartz: up to 6 Std colours

SAFETY PRECAUTIONS:

Health Considerations: Consult the Rhino Linings Material Safety Data Sheets.

The uncured components of ArmaFloor® AF500 can cause irritation to the eyes, skin, and 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.

ArmaFloor® AF500 contains isocyanates and may cause allergic skin and respiratory reactions. Do not use if you have chronic breathing problems (asthma) or if you have ever had reactions to isocyanates. When applying ArmaFloor® AF500, avoid breathing harmful vapours. Fresh air-supplied standard painter's hood and full face respirator must be worn by all personnel entering the area where ArmaFloor® AF500 is being spray applied until 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 Reference Manual. The information herein is believed to be reliable, but unknown risks may be present. All warranties of any kind, express or implied, including warranties of fitness for a particular purpose, are specifically disclaimed.

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 particular 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 any and 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.

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