

Rethane UR CIM uses specially selected raw materials that confers excellent leveling properties, excellent applicability. Abrasion, mechanical and chemical resistance. Presents resistance when in contact with moisture, fresh water and salt water.

TECHNICAL CHARACTERISTICS

TYPE

Water-based polyurethane coating, aromatic, tricomponent.

USAGE

Recommended for application in concrete floors as a self-leveling finish. Used in food, beverage, pharmaceutical and chemical industries. This system is installed from 1 - 6 mm provided that the recommendations for the preparation of the concrete surface are followed.

TECHNICAL INFORMATION

COLOR	cream, light gray, red oxide	
FINISH	Mate	
VOLUME SOLIDS	98% ± 2	According to ISO 3233
WEIGHT PER LITER	1,800 ± 0,05 g/ml	According to ASTM D 1475
MIXING RATIO	Volume	
	Comp. A	1,0
	Comp. B	0,8
	Comp. C	2,8
POT LIFE (25°C)	20 min.	
INDUCTION TIME	Not applicable	

	Thickness	Spreading rate
PRIMER	1 mm	1,00 m ² /L
FINISH	2 mm	0,50 m ² /L
	3 mm	0,33 m ² /L
	4 mm	0,25 m ² /L
	5 mm	0,20 m ² /L
	6 mm	0,16 m ² /L

DRYING TIME, for 6 mm

25°C

	Minimum	Maximum
Touch		2h
Recoat	8h	20h
Light traffic release	16h	
Heavy traffic release	24h	
Complete		7 days

SHELF LIFE	6 months
UN NUMBER	1263
HAZARD NUMBER	33

INSTRUCTIONS FOR THE APPLICATION OF RETHANE UR CIM

1. CHECKING HUMIDITY

Residual moisture

The ambient temperature should be between 7° C and 35° C and maximum air relative humidity of 85%.

New floors to be installed in places near to groundwater or subject to percolation of moisture by the soil, must provide treatment with a waterproofing blanket, before concreting. The moisture vapor content of the substrate should be less than 120 gr/24horas/1m², using the Calcium Chloride test, after 60 hours (ASTM F1869).

For already installed floors, the present moisture content can be evaluated, limited to a maximum of 5.0% (ASTM F 2659).

Ascending Humidity

A qualitative assessment of the presence of moisture in the concrete can be made using the procedure described in ASTM D 4263, as follows:

1. Fasten a 50 x 50 cm transparent plastic film in the floor with high-tack tape completely sealing the edges of the plastic film.
2. Wait between 16 and 24 hours, and after that time, remove the adhesive tape, visually examine the presence of moisture condensation in both the plastic film and the floor.

The presence of moisture above 85% may adversely affect the application. The drying may be provided by means of heat, blowing air, or waiting for natural drying.

This test should be randomly distributed throughout the floor being performed every 46 m² or as assessed by the Technical Assistant.

2. SURFACE PREPARATION

Surface oil stains, grease and oily or greasy contaminants should be removed by degreasing solutions and then rinsed with clean water. If the contamination is deep, it may be necessary to thin the surface with suitable equipment (grinders, hammers or similar).

The state of conservation of the floor and the condition of service requested will determine the type of treatment to be performed. The applicable methods are:

Old Concrete

1. Surface thinning: removal of deep contaminations, a few inches deep.
2. Milling (mechanical scarification): Generally in large areas, reaching a few millimeters deep, eliminating more superficial creams and contaminations, with exposure of concrete aggregates.
3. Electromechanical sanding: Polishing agents that promote wet or dry sanding, promoting uniform roughness on the floor, surface regularization.
4. Abrasive Blasting - Uses steel blast blows with pressurized air, promotes uniform roughness and low depth, approximately 1 mm.

5. Acid washing: In general it uses aqueous solution with 10 - 15% hydrochloric acid (organic acids such as citric acid can also be used). Then wash with water for disposal of acidic wastes. After washing, evaluate the pH using paper pH indicator (proceed according to ASTM D 4262). Perform random measurements every 50 m² or as assessed by the Technical Assistant. The measured pH values should be between 7 and 10 to proceed with the application. Usually used on very smooth floors, to give slight surface roughness.

New concrete

For new concrete with 28 days of curing, dry, free of contaminants such as salts, oils, greases and dust, wash with aqueous hydrochloric acid solution (10%). Then wash with water to remove acid residues and evaluate the pH following the recommendations given in the acid wash process for the old concrete. Rethane UR CIM can be applied in concrete with 7 days cure, but limited to maximum moisture content of 5% (ASTM F 2659).

3. PREPARATION OF THE PRODUCT

PRIMER/ FINISH

First homogenize Component A of the product with mechanical mixer with a helical rod, eliminating possible sedimentation. Then add all of Component B to Component A and homogenize. Then gradually add Component C and homogenize until color uniformity is obtained.

4. APLICATION PROCEDURE

PRIMER

After the mechanical homogenization, pour the product into medium portions and spread evenly using a trowel. Apply by pressing and tightening the product with the trowel, making curved movements, until reaching a maximum thickness of 1 mm and / or fill small imperfections. This process should ensure that the entire surface is applied.

FINISH

After applying Primer, apply the finish, respecting the recoat time between 8h and 20h. Prepare the product according to item 3, pour in medium portions and spread using trowel until the desired thickness is reached (between 2 mm and 6 mm). Then roll spike roller to help leveling and eliminate excess air inside the applied finish.

RECOMENDAÇÕES IMPORTANTES

1. The practical spreading rate of the product varies according to the applied thickness, application method and techniques, type and rugosity of the surface and ambient conditions.
2. The weight/l, viscosity and drying values were obtained in laboratory at a temperature of 25°C. At an altered temperature, the results might be different from the specified ones.
3. 3.Pot life is shortened by higher temperature and by the increase of catalyzed volume. The size of the recipient for mixing and homogenizing the product is also important. Cool the recipient externally for a longer pot life, if room temperature is above 25°C.



4. Low temperatures increase curing time. For temperatures below 10°C, contact our Consultants.
5. Due to errors inherent in any type of test, it is normal to obtain a variation of up to 2% in the solids by volume test.
6. Component C is part of the reaction, do not manipulate the proportions between Components A, B and C.
7. It is advisable to carry out application in a small area for prior approval.
8. Color uniformity may vary between batches. Do not use different lots in the same area.
9. For cleaning the utensils use solvents such as turpentine, alcohol or xylene.

PREVENTIVE RECOMMENDATIONS

1. Improper use and/or handling of this product may be hazardous to health and may cause fire or explosion. Do not use it before taking the necessary measures to avoid damages and injuries.
2. Storage: Store the product in a well-ventilated room, with a maximum temperature of 40°C. Do not expose to direct sunlight.
3. Flammability: Flammable. Keep away from flames and sparks.
4. Inhalation: Avoid breathing vapors, maintaining good ventilation during application and drying.
5. Handling: Avoid contact with skin and eyes, using gloves, goggles, protectors, masks and protective creams. Do not eat or drink near the application site. Keep away from children and pets.

IN CASE OF ACCIDENT

1. Skin contact: Wash with plenty of water and promote cleaning with mild soap.
2. Contact with clothing: Remove affected clothing and wash.
3. Leaks: Isolate area and do not smoke. In case of large spill and confined area, wear respiratory protection. Avoid breathing vapors. Cover and contain spillage with sand, sawdust or earth, and transfer the liquid and containments solid to separate containers in order to discard.
4. Fire: Protect containers from damage by water spray in the form of mist. Fire extinguishers with CO2 extinguishers, foam or chemical powder.
5. Eye contact: Immediately flush eyes with running clean water (for at least 10 minutes) and seek immediate medical attention.

IMPORTANT: For more information, consult the MSDS - Chemical Safety Data Sheet for this product.
