MAXURETHANE® 2C-W

TWO-COMPONENT, WATER-BASED POLYURETHANE PROTECTIVE COATING FOR OUTDOOR USES

DESCRIPTION

MAXURETHANE® 2C-W is a two-component, water-based, aliphatic coating which provides a protective, flexible and very high abrasion resistance coating.

It is highly resistant to weathering and UV-rays, with long-term color stability and durability, suitable for outdoor uses.

APPLICATION FIELDS

- Protective and decorative finish against abrasion for pavements and concrete floors in car parking decks, loading areas, industries, etc.
- Finish, abrasion protective coating and UV-barrier on ***MAXELASTIC® PUR -HW*** (Technical Bulletin No. 384), for roofs exposed to intensive pedestrian traffic.
- Finish and protection on acrylic coatings, such as ***MAXELASTIC®*** (Technical Bulletin No. 18) and ***MAXELASTIC® STONE*** (Technical Bulletin No. 43) for leading a higher abrasion, weathering and water resistance.
- Transparent protection and anti-stain finish on ***MAXPATCH®***,***CONCRESEAL PLASTERING®***, or other cement-based mortars, concrete, stone, wood, ceramic tiles, etc.

ADVANTAGES

- Resistant to UV rays, providing durability and long-term colour stability.
- Very high abrasion resistance, it allows car traffic and use on industrial pavements.
- Long lasting. Withstands a wide temperature range and weathering.
- Excellent adhesion on concrete and cement mortars. No special primer/bonding agent is requiered.
- Water-based product, solvent-free and non-flammable.

APPLICATION INSTRUCTION

Surface preparation

Surface must be structurally sound, firm, without cement laitance and as uniform as possible, and preferably with a slight roughness, i.e. open textured surface. It must be clean and free of paints, coatings, efflorescence, loose particles, grease, oils, curing agents, form release agents, dust, gypsum plasters, organic growth or any other contaminants that may affect to adhesion. Surface moisture content should not exceed 10 %. Do not apply on substrates subject to rising damp or negative water pressure.

Concrete and mortars:

Provide a mechanical texturing by abrasive disc, dry sand-blasting, scarification or other abrasive method to achieve at least a slightly textured surface, not being desirable aggressive mechanical or chemicals means. Finally, vacuum the dust and loose particles.

All small voids, holes, honeycombs once opened must be patched with epoxy-cement mortar ***MAXEPOX® CEM*** (Technical Bulletin No. 197) or with the epoxy-based mortar ***MAXEPOX® JOINT*** (Technical Bulletin No. 237). Static cracks without movement, once opened and routed to a minimum depth of 2 cm, must be repaired with ***MAXREST®*** (Technical Bulletin No. 27) to provide. Rebars should be cleaned and passivated with ***MAXREST® PASSIVE*** (Technical Bulletin No. 12), while non-structural and surface iron elements must be cut to a depth of at least 2 cm and then covered with ***MAXREST®***.

Expansion joints and fissures/cracks subject to movements, once opened must be sealed with a suitable sealant of ***MAXFLEX®*** range.

Metal surfaces should be cleaned to remove all traces of corrosion, and must be degreased, dry and free of dust.

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Mixing
MAXURETHANE® 2C -W is supplied as a pre-weighed two-component set. Premix the components separately, and then the hardener component B, is poured into the resin component A, ensuring is fully added. Mixing manually or preferably using a low speed drill (300-400 rpm. maximum), fitted with a mixer suitable for liquids, for about 2-3 minutes until achieving a homogeneous product in colour and appearance.

Application
Apply by brush, roller or air-less spray. On porous substrate, apply a first thin coat of ***MAXURETHANE® 2C -W*** with a consumption of 0,10-0,15 kg/m^2, as priming.

Coating with smooth surface finish. Once primer is dry, apply two pure coats of ***MAXURETHANE® 2C -W*** with a consumption from 0,20 to 0,25 kg/m^2 per coat, and allow a drying time of 6 to 12 hours between coats, depending on temperature.

Additional coats can be applied following the same interval time between coats. Do not allow more than 24 hours between coats. If this time does elapse before the following coat is applied or the surface has been in contact with water or other liquids, then lightly sand the surface before proceeding with next coat. Total recommended consumption of ***MAXURETHANE® 2C -W*** for this application is of 0,5-0,6 kg/m^2.

On vertical surfaces, apply in three or four coats to achieve the same total consumption.

Coating with anti-slippery surface finish. Once primer is dry, apply one coat of ***MAXURETHANE® 2C -W*** with a with a consumption of 0,20-0,25 kg/m^2 per coat. While this coat is still fresh, dust dry and clean silica sand ***DRIZORO® SILICA 0308*** (0,3-0,8 mm size) with a consumption from 1,0 to 1,5 kg/m^2. Also, coloured aggregates such as ***MAXEPOX® COLOUR*** can be used for aesthetic finishing. Once it is dry, sweep and vacuum surface to remove unbounded and excess sand. Finally, apply a second coat of ***MAXURETHANE® 2C -W*** with a consumption from 0,3 to 0,35 kg/m^2. Total recommended consumption of ***MAXURETHANE® 2C -W*** for this application varies from 0,6 to 0,8 kg/m^2.

Application conditions
Do not apply when rain, water contact, condensation or dew is expected within 24 h after application.

Do not apply with substrate and/or ambient temperature is at or below 10 ℃, or when are expected to fall bellow 10 ℃ within 24 h after application. Do not apply to frozen or frost-covered surfaces.

Ambient and surface temperature must be at least 3 ºC higher than dew point. Do not apply with R.H. higher than 90 %. Check relative humidity and dew point before applying in proximities of marine environment. At temperatures above 30 ℃, protect application from direct sunlight.

With low temperatures, higher humidity levels or both, use dry and warm air in order to get the suitable conditions, such as with an electric powered air blower system. Consequently, and for the evaporation of water contained in the product, if hot air is used, it must come from a dry source (electricity). The hot air from the combustion of gas or oil produces a large amount of moisture that makes it difficult to drying of the coating.

Curing
Allow ***MAXURETHANE® 2C -W*** to cure for at least 1 day for pedestrian traffic, and 3 days at 20 °C and 50% R.H. for total curing. Applications at lower temperatures and/or high humidity require longer drying and curing times.

Cleaning
All mixing and application tools must be cleaned immediately with water, after use. Once product cures, this can only be removed by mechanical means.

CONSUMPTION

Estimated consumption of ***MAXURETHANE® 2C -W*** is 0,1-0,15 kg/m^2 as primer, and 0,20-0,25 kg/m^2 per successive coats.

These figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on-site to ascertain the total consumption exactly.

IMPORTANT INDICATIONS

- Do not apply on substrates subject to rising damp or negative water pressure. Allow substrate to dry enough after rain, water contact, damp, dew, condensation, etc, as well as after washing surface.
- Allow new concrete and cement mortars to cure 28 days before coating.
- Do not add solvents, thinners or other non-specified compounds.

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- Use ***DRIZORO SILICA*** or ***MAXEPOX COLOUR*** completely dry.
- Observe the recommended consumptions per coat.
- For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

PACKAGING

MAXURETHANE® 2C -W is supplied in pre-weighed two-component set of 22.35 kg (22 kg for component A and 0,350 kg for Component B), and 5 kg (4,925 kg for component A and 0,075 kg for Component B). It is available in light grey, red, green, white, dark blue and light blue. It is also available in transparent version with matt or glossy finish. Other colours are available upon special request.

STORAGE

Twelve months for both components, in its unopened original packaging. Store in a cool, dry and covered place, protected from moisture, frost and direct sunlight, with temperatures between 5 ºC and 30 ºC.

SAFETY AND HEALTH

MAXURETHANE® 2C -W is not a toxic product but direct contact with skin and eyes must be avoided. Use rubber gloves and safety goggles during application. In case of skin contact, wash affected area with soap and water. In case of eye contact, rinse immediately thoroughly with clean water but do not rib. If the irritation persists, seek medical assistance.

Consult the Material Safety Data Sheet for ***MAXURETHANE® 2C -W***.

Disposal of the product and its packaging should be carried out according to the current official regulations and it is the responsibility of the final user of the product.

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TECHNICAL DATA

Product characteristics	
A:B mixing ratio	100:1,5
Density for component A (Pigmented version) at 20 ±2°C, (g/cm^3)	1,14 ± 0,1
Density for component B (Pigmented version) at 20 ±2°C, (g/cm^3)	1,05 ± 0,1
Density for A+B (Pigmented version) at 20 ±2°C, (g/cm ^{3})	1,14 ± 0,1
Application and curing conditions	
Minimum application temperature/ Relative Humidity (°C / %)	>10 / < 90
Waiting time between coats at 20 °C and 50% R.H., (h)	6-12
Curing time for pedestrian traffic/Total curing at 20 ºC & 50% R.H., (d)	1 / 3
Consumption*	
Primer coat, (kg/m^2) Successive coats (kg/m^2)	0,10-0,15 0,20-0,25

* These figures are for guidance only and may vary depending on porosity, texture, substrate conditions and application method. Perform a preliminary test on-site to ascertain the total consumption exactly.

GUARANTEE

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