MAXURETHANE® LIGHT

TWO-COMPONENT POLYURETHANE COATING WITH LUMINESCENT PIGMENTS TO GLOW IN THE DARK

DESCRIPTION

MAXURETHANE® LIGHT is a two-component, aliphatic polyurethane coating with luminescent pigments that once applied provides a coating that glows in the dark suitable for luminescent marking, emergency signals, etc.

APPLICATION FIELDS

- Luminescent coat for painting and signaling of exits, emergency areas, industrial floors, manufacturing process areas, etc.
- Decorative finish of floors and mural walls in residential buildings, hotel lobby, restaurants, discotheques, etc.

ADVANTAGES

- Suitable for indoor/outdoor and on common substrates; concrete, mortar, wood, tile, ceramic tile, metal, etc.
- Long lasting and excellent abrasion resistance against pedestrian traffic and wheels.
- Good resistance to chemicals.

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 5 %. 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, cavities, 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 the ***MAXREST®*** (Technical Bulletin No. 27) to provide an even surface. 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.

Steel surfaces:
Metal surfaces should be cleaned to remove all traces of corrosion, and must be degreased, dry and free of dust. Use sand or shot blasting to grade Sa 2½ of Swedish Standards. On metal surfaces, special care must be taken with the drying conditions, since if it were not too fast, oxidation problems could appear.

Primer
It is recommended to apply previously a primer or base coat in white color, in order to seal the substrate porosity and to obtain a higher absorption of the daylight on ***MAXURETHANE® LIGHT*** which will allow releasing it for longer dark periods.

Apply a first coat of ***MAXURETHANE® 2C*** white colour diluted with ***MAXURETHANE® 2C SOLVENT*** (10-15 % v/v), with an approximate

consumption of 0,20 kg/m^2, depending on substrate porosity.

Allow primer to dry from 4 to 6 h before next application coat.

Mixing

MAXURETHANE® LIGHT is supplied as a pre-weighed two-component set. Premix the components separately, and then the hardener component B, is fully poured into the resin component A. 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 ***MAXURETHANE® LIGHT*** by using a brush or roller resistant to solvents.

Smooth surface finish

Once primer is dry, apply one or two pure coats of ***MAXURETHANE® LIGHT*** with a consumption from 0,20 to 0,25 kg/m^2 per coat, depending of porosity substrate, and allow a drying time between coats of 4 to 6 hours at 20℃.

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 for this application is from 0,40 to 0,50 kg/m^2.

Non-slippery surface finish

Once primer is dry, apply one pure coat of ***MAXURETHANE® LIGHT*** with a consumption of 0,25 kg/m^2 per coat, depending on substrate porosity. While it is still fresh, dust ***DRIZORO® MEV*** with glass micro-sphere filler and a consumption from 1,0 to 1,5 kg/m^2. Once it is dry, i.e., at least 4-6 hours, depending on environmental and ventilation conditions, sweep and vacuum surface to remove unbounded and excess micro-sphere filler. Finally, apply a second coat of pure ***MAXURETHANE® LIGHT*** with a consumption of 0,25 kg/m^2. Total recommended consumption for this application is 0,50 kg/m^2.

Application conditions

Do not apply when rain, water contact, condensation or dew is expected within 72 h after application.

Optimum temperature range is from 10℃ to 35℃. 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. Do not apply to frozen or frost-covered surfaces.

Ambient and surface temperature must be at least 3℃ higher than dew point. Also, do not apply when the relative humidity is less than 30% or greater than 90%. Check the relative humidity and dew point before applying in proximities to marine environment.

If the temperature is lower or the relative humidity is higher than indicated values, the appropriate conditions must be created by hot air using a dry source (electricity); the use of gas/oil combustion leads a large amount of moisture that makes drying and curing difficult.

Curing

Allow ***MAXURETHANE® LIGHT*** to cure 1 day for pedestrian traffic, and least 3 days at 20 °C and 50% R.H. before wheel traffic. Applications at lower temperatures, high humidity and/or poor ventilation require longer drying and curing times. Protect the application from direct exposure to the sun at temperatures above 30℃ .

Cleaning

All mixing and application tools must be cleaned immediately with ***MAXURETHANE® 2C SOLVENT***, after use. Once product cures, this can only be removed by mechanical means.

CONSUMPTION

Estimated consumption of ***MAXURETHANE® LIGHT*** is 0,4 - 0,5 kg/m^2 (2 coats of 0,2 - 0,25 kg/m^2 each) for smooth finish and 0,5 kg/m^2 (2 coats of 0,25 kg/m^2 each) for anti-slipper finish.

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.
- Surface moisture content must be below 5 %. Allow substrate to dry enough after rain, water contact, dew, condensation, etc, as well as after washing of surface. If moisture is trapped behind the coating, a white film may be developed.
- Allow new concrete and cement mortars to cure 28 days before coating.

- Do not apply with relative humidity greater than 90%, as this can lead to poor curing.
- Do not add solvents, thinners, or other non-specified compounds, and nor exceed the recommended mixing ratio when using ***MAXURETHANE® 2C SOLVENT***.
- Observe the recommended consumptions per coat.
- For other uses not specified on this Technical Bulletin or further information, consult the Technical Department.

PACKAGING

MAXURETHANE® LIGHT is supplied in pre-weighed two-component sets of 5 kg, 10 and 25 kg.

STORAGE

Twelve months for component A and component B, in its unopened original packaging. Store in a cool, dry and covered place, protected from moisture, frost and direct sunlight, with temperatures between 5℃ and 30℃. Storage at higher temperatures may result in an increase of viscosity.

SAFETY AND HEALTH

MAXURETHANE® LIGHT is a flammable product so all storage, transport and handling precautions must be observed for this kind of product. Do not smoke in working areas and provide adequate ventilation. Keep away packaging from heat and ignition sources.

Skin and eye contact must be avoided. Safety rubber goggles and protective gloves should be used when handling, mixing and applying the product. In case of contact with skin, wash affected area with soap and water. In case of eye contact, rinse immediately thoroughly with clean water but do not rub. If irritation persists, seek medical assistance.

Consult the Material Safety Data Sheet for ***MAXURETHANE® LIGHT***.

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

TECHNICAL DATA

Product characteristics	
Appearance A + B	Transparent liquid
A:B mixing ratio, (w:w)	4:1
Density at 20℃, (g/cm ^{3})	1,29 ± 0,10
Application and curing conditions	
-Temperature (ºC) -Relative Humidity (%)	10 - 35 35 - 90
Waiting time between coats at 20℃, (h)	4 – 6
Total curing time al 20℃ & 50% R.H. - Pedestrian traffic (d) - Wheel traffic (d)	 1 3
Cured product characteristics	
Luminescent appearance in the dark	Yellowish / Light green
Adhesion on concrete at 28 days, EN 1542 (MPa)	≥ 1,0
Adhesion on metal / concrete, ASTM D-4541 (MPa)	2,74 / 3,75
Consumption*	
Consumption per coat, (kg/m^2)	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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