COLODUR ECO MATT

Aliphatic water-based polyurethane resin

DESCRIPTION

Colodur Eco Matt is a high-performance resin based on 2-component aliphatic polyurethane, water-based, which provides hard and flexible coatings at the same time, with high resistance to abrasion and chemical agents. It is an excellent surface protection for floors subject to intense wear action. This product does not yellow when exposed to sunlight, making it suitable for outdoor use. The absence of solvents allows this product to be used in areas with the presence of the public, without the need to evacuate them. It comes in a colourless version.

APPLICATION

- Parking decks
- Industrial flooring.
- Tennis courts and recreational areas.
- General concrete flooring
- Sealing and surface protection of epoxy, polyurethane or cementitious self-leveling products.
- Concrete flooring.
- Walls

CERTIFICATIONS

EN 13813 SR-B4,0-AR0,5-IR14,7. Applus Laboratory: Taber Abrasion test. N.08/32309984. Slip class: No. 10/1709-1861- 10101589-1262

TECHNICAL DATA

INFORMATION ON THE PRODUCT BEFORE APPLICATION

	Component A	Component B
Chemical description	Water-based polyol dispersion	Solventless aliphatic polyisocyanate
Physical state	Liquid	Liquid
Packaging (A+B pre-dosed kit)	Plastic container 12.6 kg 3.36 kg	Metal container 2.4 kg 0.64 kg
Non-volatile content	33%	100%
Flash point	>200 ºC	>100ºC
Colour	Milky white	Colourless

Density

Component A Temperature (ºC)	Component A Density (g/cm³)	Component B Temperature (ºC)	Component B Density (g/cm³)
25	1,03	25	1,15

Viscosity

Component A Temperature (ºC)	Component A Viscosity (mPa.s)	Component B Temperature (ºC)	Component B Viscosity (mPa.s)
35	350	35	500
25	850	25	1000
15	1200	15	1500
5	2500	5	3400

VOC (VOC class as per 2004/42 EC)	<10 g/L 1% A, i
Mixing ratio, A/B	A=100, B=19 by weight A=100, B=17 by volume

Mixture properties

Temperature (ºC)	Density (g/cm³)	Viscosity (mPa.s)
25	1.05	800

Colour	Milky white
Non-volatile content	48%

Pot life approximate	Conditions (100g)	Pot life (min)
	20ºC, 40% rh	180
	9ºC, 60% rh	300
Storage	Keep between 10º y 30ºC. Protect from frost.	
Use before	12 months after manufacture date	

INFORMATION ON THE FINAL PRODUCT

Final state	Solid polyurethane film
Colour	Colourless
Hardness (Shore)	55D
Mechanical properties	Elongación máxima: 35%
Abrasion resistance	15 mg (Taber, CS-10, 1000 g, 500 cycles) 28 mg (id, 1000 cycles)
Chemical resistance	Surface contact, 24 hours, 25ºC (5=ok, 0=not recommended)

Chemical	Results
Water	5
Isopropyl alcohol	0
Xylene	0
Hydrochloric acid (household d-type)	5
Bleach	5
Ammonia	1
Sodium hydroxide (50%)	5
Diesel	3
Engine oil	5
Concentrated acetic acid	0
Hydrogen peroxide	0
Methoxypropyl acetate	0
Acetone	0
Acetic acid (10%)	0
Skydrol	5
Coffee	4
Lemon juice	5
Coca cola	5
Beer	5

UV resistance	Colour stable under sunlight
Slip resistance	Quartz sand spreaded onto (0,4-0,9 mm) at 1 kg/m³: Class 3 (UNE EN 12633-2003) Class 1 without quartz sand.
Gloss	<10% (60º, 150 microns)

SUPPORT REQUIREMENTS

Support must fulfil the following requirements:

- Cohesive strength: minimum 1,5 MPa.
- Compression strength: minimum 25 MPa.

Free from any vapour or water pressure. Support must also be clean, dry, and free from poorly adhesive areas. Moisture content must be less than 4%.

Recommended support temperature: 10ºC to 25ºC. If underlying moisture is suspected, use a suitable primer. Please contact Krypton Chemical for further information about primer types.

New concrete slabs must be allowed to dry for three weeks before starting job. On porous substrates, it is recommended a prior sealing/primer coating.

Direct application of Colodur ECO Matte on a porous substrate is not recommended because of the risk of excessive matting agent deposits on the surface.

KRYPTON CHEMICAL SL
C/ Martí i Franquès, 12 - Pol. Ind. les Tàpies
43890 - l'Hospitalet de l'Infant - Spain
Tel: +34 977 822 245 - Fax: +34 977 823 977
www.kryptonchemical.com – rayston@kryptonchemical.com

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ENVIRONMENTAL CONDITIONS

- Recommended air temperature: 10ºC to 30ºC
- Recommended humidity: less than 80%.

Recently cured or applied membrane cannot meet moisture or liquid water because it can form white spots.

SUPPORT PREPARATION

Concrete:

Abrade, scarify, or treat the surface with a diamond grinding machine or similar, and then applying enough quantity of a Rayston epoxy-type primer. Allow 12-24 hours drying time of the primer before resuming job.

MIXING

Mix before use component A. Pour component B in it and stir gently for 2 minutes. Transfer the mixture to a bigger container and check there is no unmixed product left. dilute the product with 15% water.

APPLICATION

Use a suitable paint roller.

RECOMMENDED QUANTITIES

Apply up to 150 g/m^2 for each coat. Thicker applications can lead to blistering and/or loss matting effect. Extend the material with a 6 mm Teflon microfiber roller approximately with beveled edges, distributing the material from one end of the pavement to the other in the direction of product spillage with the same roller with the cross direction, we will distribute the material covering approximately 1.3m without overlapping the previous roll strip back to 1.35m overlapping less than 5 cm. Then change to a dry roller and extend the overlap slowly, check that there are no excess areas of material. If we want to achieve a surface without overlaps, always keep the edge of the application ''fresh''.

CURING TIME

Curing time depends strongly on the local conditions. Curing speed will increase with temperature and decrease with humidity. Following data refer to 200 g/m^2 applications.

Conditions	Touch dry (h)
20ºC, 50% hr	5
20ºC, 15% hr	4
5ºC, 50% hr	25
5ºC, 20% hr	35
5ºC, 80% hr	60
35ºC, 40% hr	2
35ºC, 10% hr	1

RETURN TO SERVICE

Light pedestrian traffic is allowed after 24 hours.

RECOATING

When two coats are applied, the second one can be applied after 24 the first one is dry to touch. Application afterwards requires sanding of the first coat.

TOOL CLEANING

Component A and B can be cleaned with water. Cured product cannot be dissolved unless special stripping products are used.

FAQs

Question	Answer
¿It can be thinned?	Use water, up to 15% of addition, in the A+B mixture, immediately after mixing. If thinning several cans, use the same amount in each to prevent colour variations.

MAINTENANCE

A daily water scrubbing is allowed. Caution: some solvents may seriously damage the surface.

SAFETY

Component B contains isocyanates. Always follow the instructions provided in the material safety data sheet and take the precautions described there. As a rule, suitable ventilation must be ensured, and any skin contact avoided. This product is intended to be used only for the uses and in the way here described. Sprayed application methods are not recommended due to health/safety reasons. This product is to be used only by industrial or professional users. It is not suitable for DIY-type uses.

ENVIRONMENTAL PRECAUTIONS

Empty containers must be handled taking the same precautions as if they were full. Containers must be considered as hazardous waste, to be transferred to an authorized waste manager.

OTHER INFORMATION

The information contained in this Technical Data Sheet, as well as our advice, both written as verbal or provided through testing, are based on our experience, and they do not constitute any product guarantee for the installer, who must consider them as simple information.

We recommend to study deeply all information provided before proceeding to the use or application of any of our products, and strongly advise to conduct tests “on-site” in order to determine their convenience for a specific project.

Our recommendations do not exempt of the obligation of installers to deeply study the right application method for these systems before use, as well as to conduct as many preliminary tests as possible should any doubt arise.

The application, use and processing of our products are beyond our control, and therefore under the exclusive responsibility of the installer. In consequence, the installer will be the only responsible of any damage derived from the partial or total in-observation of our indications, and in general, of the inappropriate use or application of these materials.

This Technical Data Sheet supersedes previous versions.

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43890 - l'Hospitalet de l'Infant - Spain
Tel: +34 977 822 245 - Fax: +34 977 823 977
www.kryptonchemical.com – rayston@kryptonchemical.com