

POLYECO CLEAR



Aliphatic water-based polyurethane resin

DESCRIPTION

Polyeco is a waterborne, high performance and aliphatic polyurethane resin. It cures by giving hard and flexible floor coatings also abrasion resistant. It provides a surface protection for heavily used floorings. This material does not discolour upon sunlight exposure, making it suitable for outdoor applications. Being almost solventless, it can be used in public areas with no need to close them. Colourless and pigmented versions are available.

APLICACIÓN

Suggested uses include:

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



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 Colourless: 11.7 kg 3.1 kg Pigmented: 12.5 kg 3.3 kg	Metal container Colourless: 3.3 kg 0.9 kg Pigmented: 2.5 kg 0.7 kg
Non-volatile content (%)	Colourless: 33% Pigmented: 60 %	100%
Flash point	>200 °C	>100°C
Colour	Colourless:Milky white Pigmented: variable information on available colours under request	Colourless

Density

Temp (°C)	Density (g/cm3)	Temp (°C)	Density (g/cm3)
25	1.01 (clear) 1.31 (pigm.)	25	1,15

Viscosity

Approximate

Temp (°C)	Viscosity (m.Pas)	Temp (°C)	Viscosity (m.Pas)
35	350	35	500
25	850	25	1000
15	1200	15	1500
5	2500	5	3400

Pigmented

Temp °C	Viscosity (m.Pas)
35	800
25	1200
15	2500
5	5000

VOC (VOC class as per 2004/42 EC)	<10 g/L 1% A, i
Mixing ratio A/B	Colourless: A=100, B=28 by weight A=100, B=26 by volume Pigmented: A=100, B=20 by weight A=100, B=23 by volume

Mixture properties	Temp (°C)	Density (g/cm3)	Viscosity (mPa.s)
	25	1.05 (clear) 1.19 (pigm.)	300 (clear) 2900 (pigm.)

Colour	Milky white or pigmented
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Overall non-volatile content (% by weight)	Colourless:45% Pigmented: 67%
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Pot life	
Approximate	Conditions (100g)Pot Life (min)
	20°C, 40% hr180
	9°C, 60% hr300

Storage	Keep between 10° y 30°C. Protect from frost.
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Use before	12 months after manufacture date
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INFORMATION ON THE FINAL PRODUCT

Final state	Solid polyurethane film
Colour	Several colours available. Please contact Jofa Resins for further information
Hardness Shore	55D Clear 63D Pigmented
Mechanical properties	Elongation at break: 35% (clear) 23% (pigmented)
Abrasion resistance Taber, CS-10, 1000 g	15 mg (500 cycles) 28 mg (1000 cycles)
UV resistance	It does not yellow. Certain pigments undergo slight changes under sunlight. For critical applications please consult.
Slip resistance	With quartz sand spreaded onto (0,4-0,9 mm) at 1 kg/m3: class 3 as per UNE EN 12633-2003
Gloss	Clear: 75-80% (at 60°) Pigmented: 60-65% (at 60°)
Chemical resistance	Surface contact, 24 hours, 25°C (5=ok, 0=not recommended)

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



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SURFACE REQUIREMENTS

Surface must fulfill the following requirements:

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

Must be free from any vapor or water pressure. Surface must also be clean, dry and free from poorly adhesive areas. Moisture content must be less than 4%.

Recommended surface temperature: 10°C to 25°C.

If underlying moisture is suspected, use a suitable primer. Please contact JOFA RESINS for further information about primer types.

New concrete slabs must be allowed to dry for 3 weeks before starting job.

On porous substrates, it is recommended a prior sealing or primer coating. Direct application of Polyeco Matt on a porous substrate is not recommended because of the risk of excessive matting agent deposits on the surface.

ENVIRONMENTAL CONDITIONS

- Recommended air temperature: 10°C to 30°C
- Recommended humidity: Less than 80%.

SURFACE PREPARATION

Concrete:

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

MIXING

Open the component A container then Pour component B and stir gently for 2 minutes. Transfer the mixture to a bigger container and check there is no unmixed product left.

APPLICATION

Use a suitable paint roller.

RECOMMENDED QUANTITIES

Apply up to 250 or 300 g/m² by coat. Thicker applications can lead to blistering.

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/m² applications.

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

RECOATING

When two coats are applied, the second one can be applied after 24 or 48 the first one is dry to touch.

RETURN TO SERVICE

Light pedestrian traffic is allowed after 24 hours.

TOOL CLEANING

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

FAQS

QUESTION

¿It can be thinned?

ANSWER

Use water, up to 15% of addition, in the A+B mixture, immediately after mixing. If thinning several cans, be sure to use the same amount in each to prevent colour variations.

MAINTENANCE

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

SAFETY

Component B contains isocyanate's. Always follow the instructions provided in the material safety data sheet and take the precautions specified. As a general rule, suitable ventilation must be ensured and any skin contact must be avoided. This product is intended to only be used for the describes specifications. Sprayed application methods are not recommended due to health and safety reasons. This product is to be used only by industrial or professional users. It is not suitable for DIY-type use.

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 and 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 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.

