DUROGLASS CRETE LT

3 COMPONENT PU CEMENT COMPOUNDS

CHARACTERISTICS

HACCP certified product number I-PE-863-ITA-1-RG-01.
Quick setting.
Product for **chemical resistance** 6.1 C.
Excellent **chemical resistance t**o various aggressive agents.
Good **mechanical properties**.
Resistance to thermal-shock.
Resists the proliferation of microorganisms.
Contributes to obtaining credits for **LEED** certification.
Meets the requirements of the **13813** standard for synthetic resin-based screeds.

APPLICATION TEMPERATURE

Applicable **from +10°C to +30°C** (substrate) d.p. > 3°C.

OPERATING TEMPERATURE

Operating temperature **from -45°C to +120°C** in air.

APPLICATION FIELDS

Self-levelling coating from 6 to 12 mm or **multilayer** of concrete floors, specific for:

- **food** industries
- **dairy** industries
- **wine**, **brewing** and **liquor** industries
- **pharmaceutical** and chemical industries where high chemical and solvent resistance is required.
- **mechanical** and **manufacturing** industries and when high resistance to loads and continuous passages of wheeled vehicles is required.

Suitable for self-levelling coatings from 3 to 4 mm, multilayer.

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SUBSTRATE PREPARATION

- The substrates to be treated must be **sound, compact, free from dust and pollution** from foreign substances (dirt, oil, grease, release agents, etc.).
- The **cement substrate**, after adequate mechanical preparation, must have a surface resistance to tearing greater than 1.5 MPA, measured using suitable instruments.
- In the case of **ceramic substrates** or **old resinous coatings**, after adequate mechanical preparation, their correct adhesion to the substrate and the absence of traces of pollutants must be checked.
- Damaged **joints**, **holes** and other **irregularities** must be adequately levelled and repaired with **STARCEMENT 385** type epoxy grout, or **DUROGLASS P1/2** type epoxy mortar suitably loaded with quartz or **ADDENSANTE NT2**.

Roughen the surface before laying. The choice of the mechanical preparation method (shot peening or milling) is to be chosen on the basis of the substrate conditions and the type of coating to be used.
In environments subject to strong stresses and thermal shocks, it is advisable to carry out mechanical preparations (milling) which leave rough surfaces to increase the specific adhesion.

DUROGLASS CRETE LT does not require the use of a primer in the case of dry or slightly damp substrates, in any case not in counterthrust.

On concrete substrates, use **DUROGLASS P1/2, DUROGLASS P2 PRIMER** or adequately saturated with quartz 0.3 – 0.9 mm or 0.7 – 1.2 mm.

In the case of very damp or counterthrust substrates, use **DUROGLASS FU RAPID, DUROGLASS FU BIANCO TIX, DUROGLASS FU LEVEL** as primers.
The last coat of the product used must be dusted thickly while still fresh with quartz sand of suitable granulometry.
Close to covers, grilles, joints, perimeters, doors, etc., before applying **DUROGLASS CRETE**, it is necessary to make **"restraining" perimeter cuts** on the flooring with a floor cutter with a diamond blade at a depth of at least 2 cm.

PRODUCT PREPARATION

Three-component product to be mixed thoroughly before use, operating as follows:
- Homogenize component A using an electric mixer, then add component B and mix for 30 seconds. Make sure staining is uniform.
- Gradually add component C to the previously obtained mixture. Mix for a further two minutes until a homogeneous consistency is obtained.

Given the particularity of the product, it is advisable to shake component A and component B separately before mixing them together.

DILUTION

Do not dilute the product for any reason.
The product is available in the neutral converter version, which can be coloured with:
• 0.22 Kg of **HYDRAGLASS** colour paste.

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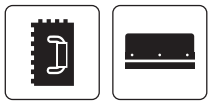

PRODUCT APPLICATION

The high speed of product curing requires adequate site organization.

DUROGLASS CRETE LT can be applied to:
- Notched trowel

The consumption ratio is approximately 2.0 kg/m² per 1.0 mm.

Following the application of **DUROGLASS CRETE LT**, the passage of a **bubble-breaking roller** is essential.

Self-levelling system: apply **DUROGLASS CRETE LT** by pouring the freshly mixed product onto the surface to be treated, then distribute it by means of a notched trowel and immediately afterwards use the bubble-breaker roller.
In environments subject to strong stresses and thermal shocks, it is advisable to carry out mechanical preparations which leave rough surfaces to increase the specific adhesion surface.

Multi-layer system: for the multi-layer application of **DUROGLASS CRETE LT**, continue by sprinkling until saturation quartz with a granulometry suitable for the degree of roughness desired (for example 0.1-0.5 or 0.3-0.8 or 0.7- 1.2 mm).
Once cured, **sand** and **vacuum** the surface to remove the excess, then apply by roller, one or two coats of 0.3 - 0.4 kg/m² (depending on the cover strength of the colour) of **DUROGLASS CRETE TOP**.

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WARNINGS AND PRECAUTIONS

- Do not apply **DUROGLASS CRETE LT** on concrete castings made less than 10 days ago.
- Do not apply **DUROGLASS CRETE LT** on substrates polluted by oils, greases or dirt in general.
- Do not mix partial quantities of the components in order to avoid making mistakes in the mixing ratio which would cause incorrect product curing.
- Do not expose the mixed product to sources of heat.
- **DUROGLASS CRETE LT** coatings exposed to sunlight undergo showy colour changes; this phenomenon does not affect the performance of the coating in any way.
- The colour of the coating may also undergo variations following contact with aggressive chemicals; the colour variation alone is not an indication of chemical aggression on the coating.
- Remove, as soon as possible and where possible, any chemical aggressive that comes into contact with the **DUROGLASS CRETE LT** coating.
- Protect the product from water for at least 24 hours after installation.
- We recommend use the **Scotch Brite** at the end of laying, once hardened, in order to remove any patina and surface dust.

SAFETY AND CLEANLINESS

When applying these products, it is recommended to use goggles, masks and rubber gloves and all the PPE required by current regulations.

Work tools must be cleaned with the thinner **DILUENTE 6** after use.

For more information regarding the precautions for use, please refer to the safety data sheet.

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TECHNICAL DATA		
Colour		RAL Colours
Specific weight	UNI EN ISO 2811-1	1,98 ± 0.10 Kg/l
Pot life at 20° C	UNI EN ISO 9514	15 minutes
Mix ratios		Comp. A: 100 Comp. B: 85 Comp. C: 839
Non-volatile substances	UNI EN ISO 3251	> 99,9 %
Curing at 22°C, 50% R.H.		- over application 24 hours min–72 hours max - light traffic: 6-8 hours - drive-over with light weight: 24 hours - drive-over with medium weight: 48 hours - fully cured: 5-7 days
Adhesion to concrete	UNI EN 13892-8	> 3,0 MPa
Impact resistance	UNI EN ISO 6272-1	> 10 Nm
Slip resistance	UNI EN 13036-4	> 40 dry > 40 wet
Wear-resistance	UNI EN 13892-4	< 30 µm
Resistance to Compression	UNI EN 13892-2	> 50 MPa
Bending resistance	UNI EN 13892-2	> 15 MPa
Elastic modulus	EN 13412	1530 MPa
Resistance to severe chemical attacks	UNI EN 13529	Sulphuric acid 20%: Class II Sodium Hydroxide 20%: Class II Sodium chloride 20%: Class II Lactic acid 10%: Class II
Storage		The product in its original sealed packaging kept in a dry and protected place at temperatures between +5°C and +35°C will keep for. 12 months component A, 12 months for component B, 6 months for component C. Protect from frost.

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CHEMICAL RESISTANCE

Testing Liquid	Liquid Temp. °C	Concentration %	Good Resistance	Limited Resistance	No Resistance
Acetaldehyde	20	100	■		
Acetic Acid	85	10	■		
Acetic Acid	20	25	■		
Acetic Acid	85	25		•	
Acetic Acid	20	40	■		
Acetic Acid	20	90		•	
Acetone	20	100		•	
Adipic Acid	20	Saturated	■		
Ammonium hydroxide	20	28	■		
Aniline	20	100	■		
Aqua regia	20	–		•	
Beer	20	–	■		
Benzene	20	100		•	
Benzoic acid	20	100	■		
Benzoyl chloride	20	100	■		
Blood	20	–	■		
Brake fluid	20	–	■		
Butanol	20	100	■		
Calcium chloride	20	50	■		
Calcium hypochlorite	20	Saturated	■		
Caprolactam	20	100	■		
Carbon disulphide	20	100		•	
Carbon tetrachloride	20	100	■		
Chlorine water	20	Saturated	■		
Chloroacetic acid	20	10	■		
Chloroacetic acid	20	50		•	
Chloroform	20	100		•	
Chromic acid	20	20	■		
Chromic acid	20	30	■		
Citric acid	20	60	■		
Copper (II) sulphate	20	Saturated	■		
Cresols	20	100		•	
Crude oil	20	–	■		
Cyclohexane	20	100	■		
Decanoic (Capric) acid	20	100	■		
Decanoic (Capric) acid	60	100	■		

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Testing Liquid	Liquid Temp. °C	Concentration %	Good Resistance	Limited Resistance	No Resistance
Diethylene glycol	20	100	■		
Dimethyl formamide	20	100			○
Ethanol	20	100	■		
Ethyl acetate	20	100		●	
Ethylene glycol	20	100	■		
Ethylene glycol (Antifreeze)	20	100	■		
Fats	80	–	■		
Formic acid	20	40	■		
Formic acid	20	70	■		
Formic acid	20	90		●	
Formic acid	20	100		●	
Gasoline	20	–	■		
Heptanoic acid	60	100	■		
Hexane	20	100	■		
Hydrochlorid acid	60	10	■		
Hydrochlorid acid	20	37	■		
Hydrofluoric acid	20	4	■		
Hydrofluoric acid	20	20		●	
Hydrogen peroxide	20	30	■		
Isopropanol	20	100	■		
Jet fuel	20	–	■		
Kerosene	20	–	■		
Lactic acid	20	5	■		
Lactic acid	60	25	■		
Lactic acid	20	85	■		
Lactic acid	60	85	■		
Lauric acid	60	100	■		
Maleic acid	20	30	■		
Maleic anhydride	20	100	■		
Methacrylic acid	20	100	■		
Methanol	20	100	■		
Methylated spirits	20	–	■		
Methylene chloride	20	100		●	
Methyl ethyl ketone	20	100		●	
Methyl methacrylate	20	100	■		
Milk	20	–	■		

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CHEMICAL RESISTANCE

Testing Liquid	Liquid Temp. °C	Concentration %	Good Resistance	Limited Resistance	No Resistance
Mineral oils	20	–	■		
Motor oil	20	–	■		
N, N-dimethyl acetamide	20	100			○
N-methyl pyrollidone	20	100			○
Nitric acid	20	5	■		
Nitric acid	20	30	■		
Nitric acid	20	65		●	
Oleic acid	20	100	■		
Oleic acid	80	100	■		
Oleum	20	–		●	
Paraffin	20	–	■		
Perchloroethylene	20	100	■		
Phenol	20	5		●	
Phenyl sulphuric acid	20	10	■		
Phosphoric acid	85	40	■		
Phosphoric acid	20	50	■		
Phosphoric acid	20	85	■		
Picric acid	20	50	■		
Propylene glycol	20	100	■		
Potassium hydroxide	20	50	■		
Sodium chloride (Brine)	20	Saturated	■		
Sodium hydroxide	20	20	■		
Sodium hydroxide	90	20	■		
Sodium hydroxide	20	32	■		
Sodium hydroxide	20	50	■		
Sodium hydroxide	60	50	■		
Sodium hydroxide	90	50		●	
Sodium hypochlorite	20	15	■		
Styrene	20	100	■		
Sulphuric acid	20	50	■		
Sulphuric acid	20	98		●	
Tetrahydrofuran	20	100		●	
Toluene	20	100	■		
Toluene sulphonic acid	20	100	■		
Trichloroacetic acid	20	100		●	
Turpentine	20	–	■		

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CHEMICAL RESISTANCE					
Testing Liquid	**Liquid Temp. °C**	**Concentration %**	**Good Resistance**	**Limited Resistance**	**No Resistance**
Vegetable oils	80	–	■		
Water (distilled)	85	–	■		
White spirit	20	–	■		
Xylene	20	100	■		