

Evercrete Vetrofluid®

ORIGINAL EVERCRETE FORMULA



FOR PROFESSIONAL USE ONLY - REVISION DATE: 3 DECEMBER 2018

Evercrete Vetrofluid® is a special waterproofing agent for protecting concrete from deterioration. Its formula is based on waterglass with a special catalyst that allows the product to penetrate into the concrete from 10 mm to 40 mm.

Evercrete Vetrofluid® seals the pores of the concrete and becomes a permanent barrier.

Evercrete Vetrofluid® permanently waterproofs, hardens and protects all types of concrete.

Properties

Evercrete Vetrofluid® guarantees permanent waterproofing of concrete even with negative pressure till 10 atm. It is a permanent and definitive treatment.

Evercrete Vetrofluid® provides the concrete with an extraordinary resistance to freezing and thawing cycles, and chlorides, sulphates and de-icing salts attack.

Evercrete Vetrofluid® completely blocks the phenomenon of carbonization and the penetration of chlorides (UNI 9944). It keeps a stable alkaline environment over the time and totally protects the reinforced bars.

Evercrete Vetrofluid® is certified for use in contact with drinking water and is suitable for waterproofing and protecting concrete tanks and surfaces for use in contact with food stuffs.

Evercrete Vetrofluid® provides the concrete with excellent resistance to chemical attacks.

Evercrete Vetrofluid® blocks water/rising damp when applied to the foundation.

Evercrete Vetrofluid® prevents the concrete from releasing cement dust into the environment, effectively obstructs the penetration of pollutants and therefore improving the environment.

Evercrete Vetrofluid® improves fire resistance, it is completely fireproof and keeps its features at any temperature, compatibly with the physical limits of the treated concrete.

Evercrete Vetrofluid® can be used on driveways as it is compatible with other finishes and overlays.

Evercrete Vetrofluid® is an odourless, colourless and non-toxic product.

Evercrete Vetrofluid® is compliance with the prescriptions of the 89/106 EEC Directive and meets the requirements of the standard CE 1504-2.

Uses


- Underground walls to waterproof from both inside and outside.
- Concrete bridges, underpasses, dams and tunnels to waterproof and protect from deterioration and corrosion.
- Purification plants, wells and storage tanks in contact with aggressive substances.

- All immersed concrete structures to block attacks from chlorides.
- Biogas plants and dugouts to protect the concrete from biomass, gases and leachates.
- Farm structures and cellars (cattle sheds, barns for cereals and hay, and piggeries).
- Drinking water tanks.
- In contact with drinking water, sewage and wastewater.
- In contact with aggressive substances and hydrocarbons.
- Concrete subject to severe climatic conditions.
- Foundations and basements to block rising damp.
- Basements which seep moisture.
- Anywhere you want to increase durability of work in concrete.
- Floors and slabs, as temporary or definitive waterproofing treatment.
- Burial crypts vaults or tombs.
- Pipes and irrigation channels.
- Exposed concrete.
- Precast concrete and Jersey barriers.

Technical features

Composition	Proprietary blend of waterglass in aqueous solution
Expiry	36 months if stored sealed
Flammability	Not flammable
Environmental risk	None
Organic properties	Odourless, colourless liquid
Storage	Store in a dry place. Keep away from glass and Aluminium
VOC content	None
Curing	36 days. Walkable after few hours
Packaging	20, 5, litre tanks

Certification

 <p>Ecobeton Italy Srl Via Galileo Galilei 47, 36030 Costabissara (VI) 08 Certificate n° GB08/76012 DOP n° 140107DOP-1504-2</p>	
<p>UNI EN 1504-2:2005 Evercrete®- Vetrolfluid® Products for the concrete protection on buildings and works of civil engineering impregnation</p>	
EN 1339 EN 1062-3	Abrasion resistance: improvement > 30% Capillary absorption and water permeability: $w < 0,1 \text{ kg/m}^2 \times \text{h}^{0,5}$
EN 13529 EN 13687-1 EN ISO 6272-1 EN 1542 EN 13501-1	Chemical resistance (astringent attack): no visible defects Thermal compatibility: $\geq 1,5 \text{ N/mm}^2$ Falling-weight test: Classes III: $\geq 20 \text{ Nm}$ Bond strength by pull-off: $\geq 1,5 \text{ N/mm}^2$ Reaction to fire tests: Euroclass A1 Slip/skid resistance: NA Depth of penetration: > 10 mm Dangerous substances: absent

The above technical data has been obtained with a dosage of 400 g/m².

Tests according ASTM (American Society for Testing and Materials International) Waterproofing & Concrete Protection Product Test	
MTO LS-412 MTO LS-417 ASTM C1202 ASTM E96 ASTM C1585 ASTM C666-A	Salt Scaling Resistance: 0,123 kg/m ² (std < 0,8 kg/m ²) Chloride Content: 0,231% by mass (< 16%*) Rapid Chloride Ion Penetrability: 448 C (< 61%*) Water Vapour Transmission : < 26%* Rate of absorption: < 52%* Freeze/Thaw Durability: no weight loss 15% NaCl Solution Absorption ¹⁾ : < 59%* 15% NaCl Solution Vapour Transmission : < 26%*

¹⁾ Dry weight variation after immersion for 1, 3, 7, 14, 21 days.

* Compare with the unsealed sample

Other performance

Properties	Result	Reference standard
Carbonization	Total resistance	UNI 9944
Contact with drinking water	Suitable	D.M. 21.03.73
Resistance to negative pressure	1MPa - ca 10 atm	Sintef
Freeze-thaw cycles resistance	No visible damages after 300 cycles	UNI 7087/72

Application

Please refer to the material safety datasheet on www.ecobeton.com.

The product should be applied in two coats, on perfectly clean surfaces free from residues of oil and grease. It can be applied by spraying, roller or brush. Application by spraying is recommended using low-pressure pumps (max 5 bar) normally available for gardening (both manual and electric). On concrete casted in formworks, after having removed the release agent. On old concrete, wet the surface the day before application. Stir the product thoroughly before use. **Evercrete Vetrolfluid®** can also be applied in wet concrete: however repairs must be carried out first of all in case of water leaks.

For more details visit website:

www.ecobeton.com

e-mail for technical support:

europe@ecobeton.it

Apply the first coat to saturation without letting the product drip; apply the second coat after the first one has dried up. Apply from the bottom upwards on vertical surfaces. The product is cured in 36 days; however the surface is ready after a few hours: any non-hydrophobic coatings (plaster, concrete castings) can be applied after a few hours, even though it is recommended to wait at least 2-3 weeks for treatments that require a completely dry base (paints, resins, etc).

Application on underground structures:

Repair all panel holes and gravel nests with a mortar/concrete. Treat the surface with **Evercrete Vetrolfluid®**. The product is not effective on cast resumptions, which have to be waterproofed with other products (e.g. waterstop). It is possible to cover the treated surfaces with soil after 12 hours and no particular protective measures are necessary.

Repair:

It is possible to repair fissures, gravel nests, and other defects using a mixture with Ecobeton Bonding Agent, or a mortar with Portland cement and Evercrete Vetrolfluid®.

1. Spray **Evercrete Vetrolfluid®** on the surface to repair.
2. Apply the mixture adding Ecobeton Bonding Agent.
3. Apply **Evercrete Vetrolfluid®** once again when the repair has dried.

Buildings:

To eliminate the humidity and water infiltration on old basements or buildings, it is possible to work from the inside after removing all the surface coatings and overlays (paint, plaster, etc.).

1. Wet the surface.
2. Spray **Evercrete Vetrolfluid®**, until it is saturated.
3. Wait for a few days.
4. Repeat the treatment.

If efflorescence are observed during the days after the application, remove it mechanically avoiding water pressure. If the surface is particularly wet it may be necessary to repeat the procedure to obtain the desired result.

Warning

Temperature: do not apply below 5°C or above 40 °C. Do not apply when rain is forecast within 24 hours.

Glass and Aluminium: protect glass and aluminium during application (watches, glasses, etc.) as they can be damaged by the product.

Coverage rate

The coverage rate per square metre varies depending on the absorption of the surface treated. In general, treat the concrete until saturated.

Coverage rate varies from 2 to 4 m²/liter of **Evercrete Vetrolfluid®** for the two coats.

Note:

The information contained in this sheet is accurate to the best of our current knowledge. The products are guaranteed and have the highest quality and standard with regard to product tolerances. As it is impossible to carry out any controls on the application of the product, no express or implicit guarantee is provided as regards the final result and no responsibility is accepted directly or indirectly by the use of the products. Users are encouraged to carry out tests before application.

Ecobeton Italy s.r.l. unipersonale is a company certified with ISO 14001 environmental management system.

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