CONSTRUCTION CHEMISTRY

Condur Fluid

Hydrophobic/water-repellent impregnation, liquid form

Silane-based 1-component impregnation liquid, environmentally friendly and solvent-free. Protects concrete and reinforced concrete in road, bridge and building constructions. Easy to apply, very good penetration and excellent water repellency.

Special information

- Meets and complies with the highest requirements according to 1504-2 for hydrophobic impregnation
- Meets the conditions according to AMA ANL 23, LFB.311
- Tested according to guidelines of NT BUILD 515 water repellent impregnation for concrete prevents penetration of chlorides
- Penetration depth class II and resistance to frost and salt impact

Characteristics

- Very good penetration
- Very good adhesion to the substrate
- Very good adhesion to final coatings
- Reduces chloride absorption
- Reduces water absorption
- Prevents chloride migration on rebar
- Easy to apply
- Low volatility
- Percentage of active substances ~99 % silane
- Transparent and applied wet on wet

Treated surface

- Strongly delays chloride and water absorption in the concrete
- Improves the concrete's resistance to frost and thawing, deicing salt and sea water
- Permeable to water vapor
- Improved durability
- Good adhesion for paint

Work instructions

Requirements on the basis

The substrate must be dry, load-bearing and free of characteristic or foreign substances.

Concrete surfaces to be treated with hydrophobization must have a curing time of at least 28 days.

Remove less solid layers and sludge accumulations, dust residues and free standing water.

Impregnation should always be carried out on surface-dry concrete, i.e. when the surface of the concrete appears evenly dry and no damp spots are visible. Moisture in the surface zone of the concrete is measured using appropriate technology (CM test or other approved method).

The moisture content of the concrete must be no more than 4% with a recommended guideline value of 3% (from the surface to a depth of 20 mm and tested with the appropriate method).

Bemix cannot take responsibility for the correctness of information other than that stated under technical data.

Conditions that are outside Bemix's responsibility are e.g. handling, processing, work execution,

possibly reactions with other materials and local conditions at the storage or workplace.

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- Surface temperature: Min 3 °C above the dew point and within the temperature range min 8 °C to max 30 °C
- Air temperature: Min 5 °C to max 35 °C
- Waiting time after rain: Min 24 hours

Material preparation

Undiluted, ready to use. Must not be diluted. Stir thoroughly before application.

Application

1. Pretreatment of substrate

If preparation of the substrate is required, cleaning with a brush or high pressure washer is recommended. After cleaning with high pressure washing, let the surface dry long enough, approx. 2 days. It is imperative that the water be removed immediately to prevent saturation of the concrete.

New surfaces, which have not yet become dirty, must be cleaned of coarse particles and dust deposits by sweeping or – if necessary - blown clean using compressed air.

2. Hydrophobization

Apply Condur Fluid evenly on the concrete surface in 2-3 layers, and in subsequent layers "wet on wet". The amount of impregnation depends on the concrete quality and the moisture content of the substrate. Test areas (1 m²) should be prepared on the concrete surface to be protected to see if the requirements are met with the dosage used in the tests.

It is recommended to prepare test areas with different dosages. Performance can be determined by measuring water uptake after 28 days (compared to untreated sample).

Applied from the bottom up, either with a low-pressure sprayer or low-pressure airless sprayer, brush or roller.

3. Security measures

When applying with airless spraymachine, take care to protect and avoid material spillage; when working near the road, prevent spillage on the vehicle and road surface as it can impair visibility and grip.

Bemix Condur Fluid must never come into direct contact with bitumen. Resistance of insulation materials to Bemix Condur Fluid must be tested for the required temperature in each individual case.

4. Finishing

After application, the hydrophobicized surfaces must be protected against moisture and rain for 24 hours. In case of unexpected rain, cover already impregnated surfaces and stop all further impregnation.

Quality control

In accordance with 1504-10.

Performance requirements

In accordance with 1504-10: Products and systems for protection and repair - Part 10.

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Technical data

Essential properties	Ratio	Value	Method
Appearance	-	Clear/colorless	-
Boiling point	1013 hPa	237 °C	OECD 103
Density	20 °C 1013 hPa	0.88 g/cm ³	DIN 51757
Flash-point	-	42 °C	ISO 3679
Molecular weight	-	~276.0 g/mol	-
Silane content	-	~99 %	-
Viscosity, dynamic	25 °C	1.9 mPa⋅s	DIN 51562
Consumption	-	~200–300 g/m ² (values are indicative only)	-
Layer thickness	-	~100–150 g/m ²	-
Application temperature surface	≥ 3 °C above the dew point	Lowest +8 °C Highest +30 °C	-
Application temperature air	-	Lowest +8 °C Highest +35 °C	-
Package size	-	25 kg (fat)	-
Meets requirements for hydrophobic impregnation	-	Protection against penetration (1.1) Moisture control I (2.1) Increased resistivity by limiting moisture content (8.1)	EN 1504-2

Packaging

Delivered in 25 kg barrels.

Storage

The containers must be protected from sunlight, heat and frost, stored in unopened and undamaged original packaging in a dry environment. The best before date for each production batch is shown on the product.

Waste disposal

Completely emptied packaging is sorted according to local instructions in the municipality. Packaging with liquid remaining is sorted and handled as hazardous waste according to local instructions in the municipality.

For information and advice on the safe handling, storage and disposal of chemical products, users should consult the latest safety data sheet containing physical, ecological, toxicological and other safety-related information. Observe the information on product handling, storage and waste disposal.

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