

ELASTOKRYL

TECHNICAL DATA SHEET



Description of the product

ELASTOKRYL is a **heat reflective elastomeric** acrylic paint for vertical surfaces. It improves the **thermal behaviour** of the building and contributes in **energy saving** due to its high reflective index and low coefficient of thermal conductivity. It provides **thermal insulation** in buildings and acts as a **carbonation barrier** protecting the concrete steel from corrosion. It is characterized as a **cool paint** because of its high solar reflectance and emittance. It covers **hair cracks** and it bonds small breaks in the render. It creates an **impermeable elastic film** that insulates and protects the surface from rain, humidity and **mildew growth** and remains elastic even at very low temperatures. When applied, it renders a flawless finish with excellent resistance to adverse weather conditions, UV rays and environmental pollution.

Recommended uses

It is applied on exterior surfaces of plaster, beton, etc.

Technical characteristics

Resin: Acrylic dispersion	
Density (white): 1.41±0.05 gr/ml	(EN ISO 2811.01-02, 20°C)
Production Viscosity: 110±10 KU	(ASTM D 562-05, 25°C)
Storage viscosity: 125±25 KU	(ASTM D 562-05, 25°C)
Solids b.w. (white): 65±2%	(EN ISO 3251-03)
Solids b.v. (white): 54±3%	(ISO 3233-98)
pH: 8.4±1	(ISO 976-96)
Minimum Film Forming Temperature: 2°C	(ASTM D 2354)
Freeze-thaw stability (-10°C): OK	(ELOT 777-85)
Packaging stability: 10/10 (1 month, 50°C)	(ASTM D 1849-03)

VOC (Volatile Organic Compounds): ELASTOKRYL belongs to the category A/c WB (Exterior walls of mineral substrate). EU Limit Value: 40 g/l). The ready to use product contains max. 18 g/l.

Shades

Available in white and in thousands of shades via the tinting system **CHROMASYSTEM**. It can also be tinted with **CHROTEX BASIC EMULSION COLORANTS** (up to 5% v/v).

Properties

Elasticity: 23°C: 141%, 60°C: 110%, -10°C: 157%	(AFNOR P84-402-89 § 3.7)
Crack bridging (-10°C): Covers hair cracks up to 430 µm (Class A2)	(DIN EN 1062.07-02)
Crack bridging (23°C): Covers hair cracks up to 430 µm	
Resistance to weathering: Excellent, no change is noted on the film	(EN ISO 2810-05)
Exposure to fluorescent UV & Water: 2000 h: No change is noted on the film	(EN ISO 11507-02)
Water Vapor Transmission Rate (permeability) (S_D): 0.77±0.004 m (class II)	(ISO 7783.02-99)
CO₂ Permeability (S_D): 65.4 m. Prevents the carbonation of concrete	(EN ISO 1062.6-02)
Liquid water permeability (w): 0.01 (Kg/(m ² h ^{0.5})) (Class III)	(DIN EN 1062.3-1999)
Solar reflectance (SR): 0.85	(ASTM E 903-96)
Solar reflectance index (SRI): 107	(ASTM E 1980-01)
Emittance (ε): 0.89	(ASTM E 408-02)
Coefficient of thermal conductivity (λ): 0.268 W/(mK)	(EN 12664)
Wet scrub resistance: > 4000 cycles	(ASTM D 2486-06)
Whiteness index: ≥ 83, Yellowing index: ≤ 1.5	(ASTM E 313-05)
Gloss 85°: 20±5	(EN ISO 2813-99)
Recoatibility: No change is noted on the film	(ELOT 788-85 § 5.4)
Bend test (Mandrel): 2 mm OK	(EN ISO 1519-02)
Resistance to liquids (NaOH 5% b.w.): No change is noted on the film	(EN ISO 2812.01-95)
Adhesion (Pull Off, with PRIMEX A-1300 as primer): > 1.5 Nt/mm ²	(EN ISO 4624-03)

Spreading rate

Recommended Total Dry Film Thickness: 200 µm.

Spreading rate: 6±1 m²/Lt per coat.

For excellent insulation and cracks filling, the spreading rate is approx. 2±1 m²/Lt for 2 coats.

Application instructions

Surfaces are cleaned from dust and flaking parts are removed. Surfaces are primed with **PRIMEX A-1300** thinned with CHROTEX BRUSH SOLVENT up to 100% or with the silicon acrylic water-based primer **PRIMEX MICRO. ELASTOKRYL** is applied in 2 coats thinned with water up to 5% v/v. For optimum results, it is recommended to apply **ELASTOKRYL** in a high film thickness (500g/m²).

For recoating surfaces that are not constantly exposed to high humidity, it is recommended to apply **ELASTOKRYL** thinned up to 5% v/v and then apply 1 coat of **ARTAKRYL** diluted 5% v/v. Alternatively the surface can be coated with **ELASTOKRYL** thinned up to 30% v/v with water and then with a final coat of **ELASTOKRYL** thinned up to 5% v/v.

Application method: Roller, brush, airless spray.

Diluent: Water.

Thinning: Dilute up to 5% v/v. For priming dilute up to 30% v/v.

Tools are cleaned immediately after the application with soap and water.

Drying time

Dry: 3±1 hours (ASTM D 1640-03).

Recoating time: 5±1 hours.

Drying and recoating time may be prolonged under conditions of low temperature and high relative humidity.

Packaging

Available in 3 Lt and 10 Lt cans.

Storage

1 year, provided the cans remain closed and in normal storing conditions. **ELASTOKRYL** can be stored after opening if the can is kept properly sealed in a cool sheltered place at temperatures 5-30°C.

Health and safety

Please refer to the labeling mentioned on the can. In case more information is needed refer to the Material Safety Data Sheet.

Notes

- It is recommended to avoid the application of the product at temperatures below 2°C or when there is a possibility of rain in the next 24 hours.
- Coated surfaces shouldn't be washed until 20-30 days have elapsed after the application.
- On fresh concrete surfaces it is recommended to apply the product at least after 30-40 days.
- **ELASTOKRYL BASES** are **ONLY** used for the production of colored shades via **CHROMASYSTEM**. They should not be applied without the special tinters **CHROMATINT**.
- **ARTAKRYL SiI** should **NOT** be applied over **ELASTOKRYL**.
- The optical properties of **ELASTOKRYL** were measured from the Physics Dept of the University of Athens. Elasticity, crack bridging, water permeability were measured at the Institut für Lacke und Farben (ILF) and Forschungsinstitut für Pigmente und Lacke (FPL).

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