

CRYSTAL 100[®]

EPOXY BINDER AND COATING

Binder and two-component solid color epoxy coating. You can decide exactly the color you want. . CRYSTAL 100[®] also stands out for its glossy finish and its very affordable price. It can be used as a binder, a primer or as a topcoat. It is easy to install.

WHERE TO USE

- Suitable for interior applications over properly prepared, new or existing concrete substrates.
- As a smooth non-textured, high build coating to seal horizontal concrete surfaces.
- Broadcast flooring, binder and top coat, to produce a variety of aggregate-filled anti-slip textures.

ADVANTAGES

- Glossy aesthetic appearance
- Easy to apply and maintain
- Low odour formulation suitable for application in occupied facilities
- Durable, good mechanical abrasion resistance
- General service broad spectrum chemical resistance
- Low VOC content

TECHNICAL DATA (PROPERTIES AT 23 °C (73 °F) AND 50 % R.H.)

CONDITIONNEMENT

7.5 L (2 gal US) Unit
Component A : 5 L Resin
Component B : 2.5 L Hardener
15 L (4 gal US) Unit
Component A : 10 L Resin
Component B : 5 L Hardener
30 L (4 gal US) Unit
Component A : 20 L Resin
Component B : 10 L Hardener

COLOUR

Light grey (RAL 7035), Telegrey 2 (RAL 7046), Beige (RAL 1001), Basalt grey (RAL 7012), Jet black (RAL 9005), Signal white (RAL 9003), Light ivory (1015)

YIELD

Prime Coat: 5 - 8m²/L (200 - 325ft²/US gal) at 5 - 8 mils (w.ft.)
Wear Coat: 1.6 - 3.3m²/L (65 - 135ft²/US gal) at 12 - 30mils (w.ft.)
**Actual coverage rates and material consumption will depend upon porosity and profile of substrates. Allowance must be also made for variation in film thickness or number of coats required to achieve opacity with light (i.e. white) or bright colours (i.e. reds and yellows) on dark substrates. Test sections are recommended to establish correct coverage.

SHELF LIFE

2 years in original unopened packaging. Store dry at temperatures between 5 and 32 °C (41 and 89 °F). Condition product at temperatures ranging between 18 and 30 °C (65 and 86 °F) before using.

MIX RATIO

A:B =2:1 by volume

SERVICE TEMPERATURE

~ Min. 0 °C (32 °F) Max. 50 °C (122 °F)

POT LIFE 250g (8.8oz)

~40 minutes

WAITING/RECOAT TIMES

from ~24 hours to ~72 hours at a temperature of 10°C (50 °F)
from ~14 hours to ~48 hours at a temperature of 23 °C (73 °F)
from ~8 hours to ~24 hours at a temperature of 30 °C (86 °F)

CURE TIME

At a temperature of 10 °C (50 °F): ~48 hours for foot traffic, ~5 days for light traffic, ~9 days for full cure
At a temperature of 20 °C (68 °F): ~18 hours for foot traffic, ~2 days for light traffic, ~7 days for full cure
At a temperature of 30 °C (86 °F): ~16 hours for foot traffic, ~36 hours for light traffic, ~5 days for full cure

VISCOSITY (MIXED)

~ 950 cps

TENSILE RESISTANCE ASTM D638

~ 7.7 MPa

BOND STRENGTH ASTM 4541

~ 2.5 MPa (360 psi) (substrate failure)

CHEMICAL RESISTANCE

Communicate with Prosol

HARDNESS SHORE D ASTM D2240

~ 78 - 82

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

HOW TO USE

SURFACE PREPARATION

The concrete surface must be clean and sound. Remove any dust, laitance, grease, oil, dirt, curing agents, impregnations, wax, foreign matter, coatings and any other detritus from the surface using appropriate mechanical means to achieve a profile equivalent to ICRI / CSP 3 - 4. The compressive strength of the concrete substrate should be at least 25 MPa (3625 psi) at 28 days and at least 1.5 MPa (218 psi) in tension at the time of application of CRYSTAL 100®.

MIXING

Pre-mix each component separately. Empty component B in the correct mix ratio to Component A. Mix the combined components at low-speed (300 - 450 rpm) for at least three (3) minutes, using a drill fitted with an Exomixer® type mixing paddle (recommended model) suited to the volume of the mixing container and to minimize entrapping air. During the mixing operation, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once, to ensure complete mixing. When completely mixed, CRYSTAL 100® should be uniform in colour and consistency. Mix only that quantity which can be used within its pot life.

APPLICATION

Prime Coat: Apply the CRYSTAL 100® as a prime coat onto the substrate using a brush, roller or squeegee, at a uniform coverage without puddling.

Wear Coat: Once the prime coat is tack-free, apply the wear coat using a squeegee or roller and backroll to achieve even coverage. If time between coats exceeds 48 hours at 22 °C (71 °F), abrade surface and wipe clean with a solvent-dampened cloth.

CLEAN UP

Clean all tools and equipment with Sika® Epoxy Cleaner. Once hardened, product can only be removed mechanically. Wash soiled hands and skin thoroughly in hot soapy water or use Sika® Hand Cleaner towels.

LIMITATIONS

- Minimum / Maximum substrate temperature 10 °C / 30 °C (50 °F / 86 °F).
- Maximum relative humidity during application and cure: 85 %.
- Substrate temperature must be 3 °C (5.5 °F) above the measured dew point.
- Moisture content of the substrate must be < 4 % when coating is applied.
- Do not apply to porous surfaces where moisture vapour transmission will occur during application.
- Not suitable for use on exterior, slab-on-grade concrete substrates.
- Protect from dampness, condensation and water contact during the initial 24 hour cure period.
- Surface may discolour in areas exposed to ultraviolet light.
- Do not hand-mix CRYSTAL 100®; mechanical-mix only.

HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data. KEEP OUT OF REACH OF CHILDREN

***The Information, and in particular, the recommendations relating to the application and end-use of Crystal Coat products, are given in good faith based on Crystal Coat's current knowledge and experience of the products when properly stored, handled and applied under normal conditions, within their shelflife. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.crystalcoat.ca*