

Cool Barrier Hygienic



Protective Top Coat for Buildings and Special Civil Engineering Works

Product Description

Cool Barrier Hygienic is a two component, breathable, waterborne, hybrid epoxy (with waterborne amine-based curing agent) top-coating, containing non-toxic inorganic preservatives and biocide agents, which perform excellent anti-bacterial and anti-mould protection of treated surfaces. The product is special designed for the protection of mineral based surfaces (especially reinforced concrete – anticarbonation protection), subject to frequent water-vapor cleaning procedures or exposed to harsh environmental conditions, such as sulphur dioxide, bacteria, oils and site dust.

Special Uses

Cool Barrier Hygienic is specially designed for the treatment of internal walls in hygienic rooms, mortuaries, tunnels, food companies and in general of wall areas, subject of very often cleaning with mild disinfectants or subject to harsh indoor pollution. Anticarbonation Properties: Cool Barrier Hygienic when properly applied performs excellent protection to concrete based structures and to the most mineral-based substrates against aggressive atmospheres, moisture ingress and carbonation.

- For concrete, bricks, cement based substrates and tiles
- Suitable for clean rooms in the pharmaceutical and medical industry.
- Suitable for food and beverage industry, healthcare facilities, kitchens, prisons and leisure facilities.
- Suitable for areas with high visual comfort demand (i.e tunnels)

Characteristics / Advantages

- Easy application
- Fast drying, two coats in one working day
- Good resistance to repeated cleaning regimes using mild detergents and cleaning solutions
- Hard finish, impact, scratch and abrasion resistant
- Leach resistant in-film preservative
- Anti-bacterial
- Seamless, mat-sheen, easy clean finish
- Good covering and hiding power (opacity)
- Low odour and low flame spread

Appearance / Colour

Standard colour shade with minimum LRV value > 80: pearl white (RAL 1013), cream white (RAL 9001), grey white (RAL 9002), white (RAL 9010), light blue (CB 013) light green (CB 016). Special colours may be made to order subject to minimum order quantities.

Packaging

Cool Barrier Hygienic A Component 15.0 litres, B Component 5 litres.

Storage Conditions/ Shelf-Life

12 months from date of production if stored properly in original, unopened and undamaged sealed packaging, in dry conditions at temperatures between +5°C and +25°C. Avoid exposure to frost and sources of heat.

Opacity and Gloss Levels

Standard: Low Sheen (10–25% gloss (EN 13300:2001) - Semi Gloss (41–69%)

Opacity (Contrast Ratio) >97.% (100 micron film - EN 13300:2001)

Adhesion

Smooth Concrete: 3.2 MPa (N/mm²)

Brick: 3.8 MPa (N/mm²)

Cement cladding board : 1.2 MPa (N/mm²)

Steel : 4.9 MPa (N/mm²)

Principal Characteristics

Non-flammable/non-explosive

Two component polyamine cured water borne epoxy coating

Low free-amine content, significantly reducing the health risk to production workers and craftsmen

Equipment can be cleaned with water instead of the solvent required in the case of conventional coating systems

Can be thinned with water

Can be applied directly to damp concrete with the use of appropriate primer from the Hydrodur range

Environmentally and user friendly

Basic Data at 20°C

Mass density: 1.2 g/cm³

Volume solids: 70 ± 2%

VOC (supplied): max. 40 g/l (Directive 1999/13/EC)

Recommended dry film thickness: 75-100 µm depending on system

Overcoating interval: min. 2 hours (with itself) max. 6 months

Theoretical spreading rate: 5 m²/l, at 100 µm dry film thickness

Touch dry after: 5 hours at normal conditions

Full cure after: 5 days

PERFORMANCE DATA Acc. EN 1504-2

Typical Data according to EN 1504-2 : Products and systems for the protection and repair of concrete structures. Definitions, requirements, quality control and evaluation of conformity. Surface protection systems for concrete		
Principles	Minimum requirements (table 5 EN 1504, part 2)	Cool Barrier Hygienic characteristic values
Principle 1 Protection against ingress		
Permeability to CO ₂ Test method EN 1062 – 6	Sd > 50 m	SdCO ₂ =56.08 m (anticarbonation)
Principle 1 Protection against ingress Principle 2 Moisture control Principle 8 Increase of resistivity		
Permeability to water vapour Test method EN ISO 7783 – 1 EN ISO 7783 – 2	Class I: Sd < 5 m Class II: 5 m ≤ Sd ≤ 50 m Class III: Sd > 50 m	Class I Sd= 1.75 m
Capillary absorption and permeability to water Test method EN 1062 – 3	W < 0,1 kg/m ² x h ^{0.5}	W=0.022Kg/m ² h ^{0.5}
* Abolin Co recommends ADHESION TESTS prior to bidding the project to ensure adhesion and compatibility between the coating and the substrate.		

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 3:1

The temperature of the mixed base and hardener should preferably be above 15°C, otherwise extra water may be required to obtain application viscosity. Too much water results in reduced sag resistance and slower cure. Water, if necessary, should be added after mixing the two components. Adequate ventilation must be maintained during application and curing. Must be protected from freezing at all times during storage and/or transport. Induction time: None. Pot life: 3 hours at 20°C

AIRLESS SPRAY

Recommended thinner: tap water

Volume of thinner: 0 - 5%, depending on required thickness and application conditions

Nozzle orifice: approx. 0.48 mm (= 0.019 in)

Nozzle pressure: 15 MPa (= approx. 150 bar; 2130 p.s.i.)

BRUSH/ROLLER

Recommended thinner: tap water

Volume of thinner: 0 - 5%,

CLEANING SOLVENT

Recommended solvent: tap water and Acetone:

Pulsate filter and tip filter must be taken out of the equipment and cleaned properly

ADDITIONAL DATA

Curing table for dft up to 100 µm and Pot Life

Substrate temperature	Pot Life	Touch dry	Dry to handle	Full cure
10°C	4 hours	3 hours	16 hours	6 days
20°C	3 hours	2 hours	8 hours	5 days
30°C	2 hours	1,5 hours	6 hours	4 days
40°C	1 hours	1 hours	4 hours	3 days

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

LIMITATION OF LIABILITY

The information in this data sheet is based upon laboratory tests we believe to be accurate and is intended for guidance only. All recommendations or suggestions relating to the use of the Coatings products made by Abolin Co, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge are reliable. The products and information are designed for users having the requisite knowledge and industrial skills and it is the end-user's responsibility to determine the suitability of the product for its intended use.

Abolin Co has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Abolin Co Coatings does therefore not accept any liability arising from loss, injury or damage resulting from such use or the contents of this data sheet (unless there are written agreements stating otherwise).

The data contained herein are liable to modification as a result of practical experience and continuous product development. This data sheet replaces and annuls all previous issues and it is therefore the user's responsibility to ensure that this sheet is current prior to using the product. The English text of this document shall prevail over any translation thereof.

The management system has been certified according to EN ISO 9001
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