

PRODUCT DATA SHEET

Colorcomplete®

MINERAL, PIGMENTED, SURFACE HARDENER

PRODUCT DESCRIPTION

Colorcomplete® is a premium quality, pre-mixed and ready to use, pigmented, broadcast-applied, dry shake floor hardener designed for incorporation into the surface of freshly placed concrete slabs. It provides a decorative coloured effect, with increased surface strength and abrasion resistance. Colorcomplete® consists of carefully graded non-metallic, hard wearing silica-quartz aggregates, pure metallic oxide pigments, pre-blended wetting agents and cement. Its non-rusting characteristic makes it suitable for application in wet and dry service areas.

WHERE TO USE

Colorcomplete® may only be used by experienced professionals.

- Commercial and industrial facilities subject to moderate levels of abrasion, impact and loading
- Manufacturing and warehouse floors
- Shipping and receiving loading docks
- Food processing areas
- Automotive showrooms and service areas
- Shopping centres and supermarkets
- Convention centres
- Aircraft hangars
- Areas where an attractive, coloured, abrasion resistant concrete floor is required

PRODUCT INFORMATION

CSC MasterFormat®

03 35 19 | COLOURED CONCRETE FINISHING

Packaging

25 kg (55 lb) bag

CHARACTERISTICS / ADVANTAGES

- Aesthetic, durable, coloured concrete surface provides a lower life cycle cost than painted floors
- Increased wear resistance provides up to twice the relative serviceable life compared to plain concrete
- Improved overall resistance to abrasion and impact
- Increased surface density improves resistance to oils, grease, and liquid penetration
- Reduces surface wear and dusting lowering routine maintenance and repair costs
- Non-rusting materials make it suitable for application in wet areas
- Can be finished with a surface texture to provide increased traction
- Suppresses the appearance of fibres on the surface of the concrete

APPROVALS / CERTIFICATES

- Meets requirements of CFIA and USDA for use in food plants

Shelf Life	1 year in original, unopened packaging.
Storage Conditions	Store dry, ensuring product is not exposed to rain, condensation or high humidity.
Appearance / Colour	French Grey, Pearl Grey, Tile Red and Special colours (on request) Refer to current price list for availability.

TECHNICAL INFORMATION

Surface Hardness	~6.5 to ~7 (Moh's scale)	
Compressive Strength	28 days	~49 MPa (~7105 psi) (ASTM C109)
Yield	In-service condition	Dry-shake application rate
	Light to Medium duty	5 kg/m ² to 6 kg/m ² (1.0 lbs/ft ² to 1.2 lbs/ft ²)
	Medium to Heavy duty	6 kg/m ² to 7 kg/m ² (1.2 lbs/ft ² to 1.4 lbs/ft ²)
Note: Pearl Grey will provide optimal results at 6 kg/m ² to 7 kg/m ² (1.2 lbs/ft ² to 1.4 lb/ft ²).		

BASIS OF PRODUCT DATA

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.

Properties tested at 23 °C (73 °F) and 50 % R.H. unless stated otherwise.

LIMITATIONS

- Pigmented dry shake hardeners require special care to produce a relatively uniform colour. Take care to apply materials with maximum uniformity. A calibrated mechanical spreader is the most precise method to ensure uniform distribution.
- Do not apply hardener into standing bleed water as this may dilute colour intensity and reduced surface strength.
- Protect installation area from direct sunlight and windy conditions that can cause rapid surface drying of the concrete.
- Do not install over concrete containing calcium chloride and or admixtures containing calcium chloride.
- Do not apply over concrete having more than 3 % air content in accordance with CSA A23.1-2019 Clause 7.7.4.3.1.
- Concrete mixes containing more than 20 % cement replacement using Supplementary Cement Materials (fly ash, slag or limestone) and some chemical admixtures can reduce the quantity of bleed water available to "wet out" the dry shake surface hardener which can cause difficulties with application and finishing. Modification to the concrete mix design may be required to address the bleed quantity. Sikafilm®

should be used with low bleed quantity concrete mixes to reduce premature surface drying.

- Final colours may vary from colour standards according to concrete mix design, brand of cement, use of fly ash, slag, silica fume or other concrete additives and aggregate source. It is therefore recommended that a mock-up sample be applied on site using specified concrete, application methods and hardener application rates for approval to set a standard for the project.
- Proper curing and sealing is required in accordance with CSA A23.1 - 2019 Clause 7.8.2.
- For best results, condition product to 18 °C to 29 °C (65 °F to 84 °F) prior to installation. Lower temperatures may result in slower strength development and longer cure times.
- Protect stored material from exposure to rain, condensation and high humidity as moisture may penetrate packaging, causing lumps.
- Do not use in areas exposed to acids or other chemicals that are known to rapidly deteriorate concrete.
- Do not use in areas subject to repeated freeze/thaw cycles.
- Common industrial stains such as rubber tire marks, etc., tend to be more noticeable with lighter colours.

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

SUBSTRATE PREPARATION

General considerations before starting work

Consult appropriate sections of CSA A23.1 -2019 and ACI 302 1R-15 for design and installation guidance. Job site conditions can influence surface drying and set time affecting the timing of hardener application and finishing procedures. Experience is required to determine proper timing for required procedures.

During cold weather, open flame heaters shall not be used. Space heaters must be properly vented to avoid floor surface damage caused by carbonation or contamination.

Hot or windy conditions may require adjustments to application procedures to offset rapid setting of concrete surface. Ideally the building will have a roof and walls in place to protect from direct environment. Consider Sikafilm® to protect concrete from the effects of excessive moisture loss in rapid drying conditions. Specialized application methods and concrete mixes might be necessary to facilitate the incorporation of heavy industrial 7 kg/m² (1.4 lb/ft²) application rates. DO NOT machine trowel concrete with an air content of 3 % or higher as surface delamination may occur, see CSA A23.1-2019 Clause 7.7.4.3.

APPLICATION

Manual Application: 5 kg/m² or 7 kg/m² (1 lb/ft² or 1.4 lb/ft²) manual spread in 2 or 3 broadcasts

Colorplete® is applied to the surface in 2 or 3 broadcasts, each layer being floated in using machine float equipment. The surface is then machine floated and hand or machine trowelled as required to meet the specified requirement. Apply the first broadcast of Colorplete®, as soon as concrete is firm enough to support the weight of workmen with a footprint depth of ~ 6 mm (1/4") with NO free standing water present on the surface. Use up to 2/3 of the total material in the first application. Spread the product evenly by broadcasting at right angles in two (2) passes close to surface level. DO NOT broadcast from a stationary position to avoid uneven distribution of the hardener. Allow Colorplete® to absorb surface moisture from the underlying concrete. DO NOT float over dry surface hardeners which must "wet out" before proceeding with hand or machine floating. Machine float the broadcasted material promptly after it has "wet out". Ensure that the broadcast application is incorporated into the base slab by machine floating. Follow immediately behind first floating, apply the remaining surface hardener material, and repeat as above.

Note: For applications greater than 5 kg/m² (1 lb/ft²), apply hardener in 2-3 shakes. First application should be 50 % of the total required material and the remainder applied in each of the subsequent applications.

Final Finishing

If a slip resistant finish is required, do not proceed with further trowelling operations after floating. See CSA A23.1 - 2019 Clause 7.7.6 for other non-slip finishes. Sika recommends a mock-up be constructed using actual job site products and installation methods to determine an approved surface texture that meets the client's requirements.

Hand or machine trowel at suitable time intervals to obtain the specified finish. See CSA A23.1 -2019 Clause 7.7.4.3.

Do not burnish the surface. Best appearance is achieved by hand trowelling the final finish.

CURING TREATMENT

As soon as final troweling is completed and applicator and equipment cannot damage the surface, apply as per printed directions, one or more coats of Sika® Florseal WB-18 & -25 using a low-pressure spray. Protect finished surface from damage by traffic or trades until sufficiently hardened.

CLEAN UP

Clean all tools and equipment promptly with water. Remove hardened product mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

LEGAL NOTES

The information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. 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

Colorplete®

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Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

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