



PRODUCT DATA SHEET

Sikagard® HB 200 LR

(formerly MProtect HB 200LR)

Low-VOC, highly reflective, water-based modified acrylic coating for interior parking structures

PRODUCT DESCRIPTION

Sikagard® HB 200 LR is a one-coat, water-based, modified acrylic coating with high light reflectance. When used on the interior walls and ceilings of parking garages, the result is reduced energy usage and increased safety and security.

WHERE TO USE

- Interior
- Overhead and vertical
- Above grade
- Parking structures
- Ceilings
- Walls
- Beams
- Columns

Substrates

- Concrete
- Brick
- Stucco
- Block
- Primed wood or metal
- Existing Coatings

CHARACTERISTICS / ADVANTAGES

- High light reflectivity enhances the security of garages and increases lighting efficiency
- Airless spray application speeds production and reduces turnaround time
- Excellent adhesion, bonds securely to substrate for long-term durability
- Excellent colour retention; maintains brightness without fading over time
- Freeze/thaw resistant, suitable for cold climates
- Low-VOC content for broad compliance across all regions
- Water-based formula with low odour
- No dirt pick-up to maintain an attractive appearance
- One-coat coverage lowers labour and material costs and returns structures to service quickly
- Effective carbon dioxide diffusion barrier, protects embedded steel from corrosion

TECHNICAL INFORMATION

| Dry film thickness | m ² /L (ft ² /US gal.) | Wet mm (mil) | Dry mm (mil) |
|-------------------------|--|--------------|--------------|
| | 3.1 (125) | 0.30 (12–13) | 0.14 (5.5) |
| | 3.7 (150) | 0.25 (10–11) | 0.11 (4.5) |
| | 4.3 (175) | 0.20 (8–9) | 0.10 (4.0) |
| Tensile Strength | 3.9 MPa (567 psi) | | (ASTM D412) |

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|---|---|--------------|----------------|
| Modulus of Elasticity in Tension | Elongation at Break | | |
| | 35 % | | (ASTM D412) |
| Permeability to Water Vapour | 2.1 dry perms | (ASTM D1653) | |
| | 15 wet perms | (ASTM E96) | |
| Solar Reflectance | Sikagard® HB 200 LR | 88 % | (ASTM E1164) |
| | Light concrete | 52 % | |
| | Dark concrete | 27 % | |
| | Sikagard® HB 200 LR over light concrete | 88 % | |
| | Sikagard® HB 200 LR over dark concrete | 88 % | |
| Diffusion resistance to carbon dioxide | R (equivalent air-layer thickness), m (ft) | 166 (544) | (PR EN 1062-6) |
| | Sc (equivalent concrete thickness), cm (in) | 42 (18) | |
| Reaction to Fire | Flame Spread* | | |
| | 10 | | (ASTM E84) |
| | Smoke Development* | | |
| | 10 | | (ASTM E84) |
| | *Scale of 0–200; 0 is best | | |

PRODUCT INFORMATION

| | | | |
|------------------------------------|---|--|--------------|
| CSC MasterFormat® | 09 90 00 PAINTING & COATING | | |
| Composition / Manufacturing | Proprietary blend of acrylic polymers with special additives dispersed in a water base. | | |
| Packaging | ▪ 18.93 L (5 US gal.) pails | | |
| Shelf Life | 1 year when properly stored | | |
| Storage Conditions | Store in unopened containers in a cool, clean, dry area. Keep from freezing. | | |
| Density | 4.8 kg (10.6 lb) per gallon | | (ASTM D1475) |
| Solid content by weight | 51.4 % | | (ASTM D2369) |
| Solid content by volume | 44.8 % | | (ASTM D5201) |
| Viscosity | 122–131 KU at 25 °C (77 °F) | | (ASTM D562) |
| pH-Value | 8.8–9.3 | | |

APPLICATION INFORMATION

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| Drying time | 2–4 hours at 21 °C (70 °F) and 50 % relative humidity. Note: Lower surface or air temperatures and higher relative humidity will extend the drying time. |
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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.

LIMITATIONS

For professional use only; not for sale to or use by the general public. Proper application is the responsibility of the user. Field visits by Sika personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

- Do not apply when the substrate or ambient temperature is 4 °C (40 °F) or below or is expected to fall below 4 °C (40 °F) within 24 hours after application.
- Not intended for use as a horizontal traffic-bearing coating.
- Apply a 1.2 m x 1.2 m (4 ft x 4 ft) test area to verify acceptable colour, texture, and adhesion before proceeding with any project. The test method for measuring adhesion is ASTM D3359, Measuring Adhesion by Tape Method A. On the 0–5 scale, a minimum adhesion rating of 4A is required.
- Do not thin the material.
- Make certain the most current versions of the product data sheet and SDS are being used.

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.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

1. Surfaces should be clean, sound, and free of all bond-inhibiting contaminants.
2. Mildew and fungus must be completely removed before application of Sikagard® HB 200 LR.
3. Concrete substrates should be fully cured.
4. Repair any holes, spalled and damaged concrete with appropriate Sika® repair materials. Allow appropriate cure time prior to coating.
5. Remove any protruding concrete accessories and smooth out any surface irregularities.
6. High-pressure power wash surface (or abrasive blast on hard, dense surfaces) to create a profile of CSP 3, per ICRI Guide 310.2.
7. Some stains may require chemical removal. Neutralize any cleaning compounds used and rinse with clean water.
8. Check the adhesion of old coatings according to ASTM D3359, Measuring Adhesion by Tape Test Method A.
9. Remove any blisters or delaminated areas and sand edges to smooth rough areas and provide a transition to old paint areas.
10. Treat cracks greater than 0.7 mm with Sika Thorocoat®-746 Knife Grade or SikaWall® FL 748. Treat cracks larger than 6 mm as expansion joints and fill

- with appropriate Sika sealant.
11. The new CMU must have a base coat of Sika Thorocoat®-749 Block Filler.

MIXING

1. Prior to use, mix Sikagard® HB 200 LR at a slow speed with a drill and mixing paddle to ensure uniform colour dispersion and minimize air entrapment.
2. In multi-pail applications, mix the contents of each new pail into the partially used previous pail to ensure colour consistency and smooth transitions from pail to pail.

APPLICATION

1. Apply Sikagard® HB 200 LR by brush, spray, roller, or spray and backroll.
2. Maintain proper uniform wet-film thickness (w.f.t.) during application to ensure the performance characteristics desired (see yield rates section).
3. Always work to a natural break and maintain a wet edge during application.
4. For uniformity of colour, application techniques must be consistent throughout the project.

Roller

1. Use a quality, 19 mm – 31 mm nap roller cover.
2. Completely saturate the roller and keep it loaded with the coating to build the required mils. Never dry roll.
3. Cross roll, maintaining a wet edge, to achieve uniform thickness. Backroll in one direction for a consistent appearance.

Spray

1. Equipment is available for spraying Sikagard® HB 200 LR. Contact the equipment manufacturer for further recommendations.
2. Backrolling in one direction after spray application is recommended to achieve uniform film thickness.

Brush

1. Application by brush is recommended only for small inaccessible areas, for example, on touch-ups.
2. Use only a nylon brush.

CLEAN UP

Clean all tools and equipment immediately with water. Cured material may be removed by mechanical means.

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

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SikagardHB200LR-en-CA-(11-2024)-2-2.pdf

Product Data Sheet

Sikagard® HB 200 LR
November 2024, Version 02.02
02030300000002022

