



Technical Data Sheet

BC Coat SHF

Liquid Concrete Surface Hardener, Dust Proofer & Curing Aid

1. Product Description

BC Coat SHF is a water-based, sodium silicate concrete surface hardener, dust proofer, and curing aid designed to penetrate deeply into cementitious substrates.

It chemically reacts with free lime in concrete to form insoluble crystals that densify the surface, significantly improving abrasion resistance, durability, and dust control while maintaining the natural appearance of the concrete.

BC Coat SHF also neutralizes alkalis within the concrete, reducing efflorescence and improving long-term performance of the treated surface.

2. Application Areas

BC Coat SHF is suitable for new and existing cementitious surfaces including:

- Industrial floors and factories
- Warehouses and logistics centers
- Parking areas, garages, and driveways
- Cold stores and food processing facilities
- Shopping malls and commercial floors
- Granolithic paving and terrazzo floors

3. Product Features & Advantages

- Deep penetration and permanent concrete densification
- Significantly improves abrasion resistance and surface hardness
- Acts as an effective dust proofer
- Enhances concrete curing by improving water retention
- Reduces efflorescence and alkali migration
- Clear finish that preserves natural concrete appearance
- Improves bonding of subsequent coatings
- Low VOC, non-toxic, non-flammable



4. Technical Data

Property	Typical Value	Test Method
Appearance	Clear liquid	Visual
Chemical Base	Sodium silicate	–
Specific Gravity	1.20 ± 0.05	ASTM D891
Solids Content (by weight)	25 ± 1 %	ASTM D2369
Abrasion Resistance Improvement	> 63 % improvement vs untreated concrete	ASTM D4060 (H22 wheel, 1000 g, 250 cycles)
Compressive Strength Improvement	> 20 %	ASTM C39
Water Retention Improvement	> 30 %	ASTM C156
UV Resistance (50 hrs exposure)	No change observed	Internal
VOC Content	< 10 g/L	ASTM D3960
Fire Properties	Non-flammable	–

5. Application Instructions

Surface Preparation

- Substrate must be clean, sound, dry, and free from oil, grease, dust etc.
- Oil-contaminated surfaces should be degreased and thoroughly washed
- Remove all contaminants to ensure maximum penetration

Application – New Concrete

- Apply immediately after final trowelling once surface is firm enough to walk
- Apply using low-pressure sprayer at 4 – 7 m²/L
- Keep surface wet for 30 – 40 minutes, working material in with a soft broom



Application – Existing Concrete

- Apply one uniform coat using low-pressure sprayer
- Spread evenly with soft broom
- Maintain wet surface for minimum 30 minutes
- Second coat may be applied on porous concrete after 2–3 hours

6. Coverage

- 3.3 – 5.8 m² per kg per coat
- Coverage depends on surface porosity and condition

7. Limitations

- Minimum application temperature: 5°C
- Maximum application temperature: 50°C
- Do not use airless spray equipment

8. Packaging

BC Coat SHF is supplied in **20 kg pails**, ready for use.

9. Storage & Shelf Life

- Store in dry conditions, away from direct sunlight
- Storage temperature: 5°C – 35°C
- Shelf life: 12 months from date of manufacture in unopened containers

10. Health & Safety

- Avoid contact with skin and eyes
- Wear protective gloves and goggles
- In case of eye contact, rinse immediately with clean water and seek medical advice
- Refer to Safety Data Sheet (SDS) for full information

DISCLAIMER

The data presented in this sheet are based on laboratory testing and practical experience. Variations in substrate, application method, and environmental conditions may impact performance. Users are advised to carry out tests under their own conditions. Building Chemistry Industry's responsibility is limited to the product replacement in cases of proven manufacturing defect.

