SX60 HEALTHGUARD ANTI MICROBIAL, SELF-LEVELING, SOLVENT-FREE EPOXY

INDUSTRIAL COATINGS



Description

A solvent-free epoxy paint with enhanced hygienic properties. The anti-microbial action inhibits fungal, bacterial and algae growth.

Recommended For

Designed to protect interior concrete floors, walls and ceilings, where strict hygienic control is essential. Ideal for pharmaceutical factories, food and beverage manufacturing plants, hospitals, etc.

Key Features

- Inhibits microbial growth
- Anti-Algae
- Non-toxic
- Self-leveling
- High-build
- Excellent chemical resistance
- Excellent abrasion and impact resistance

Physical Properties

Solvent Type	Solvent free				
Finish Type	Gloss based on ASTM D523				
Spreading Rate	1.5KG/sqm/mm				
Dry Film Thickness	By Troweling- up to 2 mm. By Roller-from 500 microns				
Pot Life	80 min at 25 [°] C				
Recoat	After 24 hours				
Full Cure	7 days after application				
Density	~ 1.5 g/L based on ASTM D4541				
Antibacterial properties	>99% based on JIS Z 2801:2000				
Adhesion	> 4N/mm ² (concrete fracture) based on ASTM D 4541				
Compressive Strength	Method: ISO 604 Result: 65 N/mm ² Conditions ¹ 10 days @ 20°C				
Elastic Modular Tension	Result: 9200 N/mm ² Conditions [:] 10 days @ 20°C				
Flexural Strength	Method: ISO 178 Result: 24 N/mm ² Conditions 10 days @ 20°C				
Coefficient of Linear Thermal Expansion	Method: DIN 53752 Result: 49 x 10 ⁻⁵ /K Conditions [:] 10 days @ 20°C				
Solids	100 %				
Colors	Tintable in 1100 color				
Bases	White, W1, N				
VOC	< 100 g/l as Per EPA Method 24				

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Surface Preparation

Recommended surface preparation should follow the guidelines of the International Concrete Repair Institute (ICRI). Key to the guidelines is ICRI's Concrete Surface Profile (CSP) classifications, a system of ten distinct textures ranging from CSP1 (nearly flat) to CSP10 (extremely rough).

Most common conditions on site:

Laitance

Laitance is the weak, milky layer of cement and sand that rise to the concrete surface because of premature finish or troweling. If a coating is applied directly to the laitance layer, the floor traffic will cause disbanding of the coat.

Contaminations

Old concrete floors can be contaminated by oil, grease, chemicals etc. Check the surface for dark patches that indicate contamination. Spray water on it to see if it absorbs the water. If water stays on the surface, then it indicates contamination, and must be removed by concrete cleaner or degreaser.

Porous concrete

The common procedure is to sand and apply a primer that penetrates the substrate well. In cases where a high performance is needed, it is possible to shot-blast or scarify.

Polished concrete and non-porous construction materials

It is essential to apply proper primers. For high-performance systems, such as those applied in hygienic areas, shot blasting, scarifying or grinding is necessary.

Well-attached old paint

Should be sanded to ensure good adhesion.

Badly-attached old paint

Remains of badly-attached, old materials must be removed as these can cause detachment.

Damp

Surfaces that have problems with dampness require a system that permit vapor permeability. If they don't comply with these requirements, there will be an increased risk that the flooring will blister or detach.

	CONCRETE SU	RFACE PROFILE (CSP) CLASSIFI	CATIONS & RECOMMENDATIONS
CSP-1 Acid Etched CSP-4 Medium Blast	CSP-2 Grinding CSP-5 Medium/Heavy Blast	CSP-3 Light Abrasive Blast CSP-6 Heavy Blast	The CSP chart is used as a visual representation of desired concrete surface textures, roughness and general appearance. The guideline designates each CSP classification as a suitable base for specific coating types and thicknesses. It also describes the method(s) or equipment typically used to achieve the texture per the CSP classification.
CSP-7 Heavy Shotblast	CSP-8 Extreme Shotblast	CSP-9 Extreme Shotblast	
0 to 75 microns			CSP1
100 to 300 microns			CSP2 – CSP3
1000 to 3000 microns			CSP3 – CSP4
Above 3000 microns			CSP3 – CSP4 – CSP5



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	CSP1 PROFILE	CSP2 PROFILE	CSP3-CSP7 PROFILES
Method	Acid etching	Grinding	Shot Blasting
Notes	Diluted hydrochloric acid is applied liberally onto the floor by a watering can or an acid-proof manual spray pump. This method does not remove surface contaminates such as oil and grease, which must be removed before the etching process.	A diamond grinder uses horizontally- rotating discs to level, smooth and clean the concrete slap surface. This method carries a low surface damage risk.	A dust-free technique that removes, cleans and achieves the desired profile of the surface in a single step. Thousands of steel shot particles are propelled onto the surface, removing the top layer and contaminates on the concrete surface

Application Conditions

Application can only proceed at temperatures above 10°C, and relative humidity below 75%. Drying data are given on the assumption that proper ventilation is provided. At higher temperatures epoxy will cure faster than normal.

SX60 HealthGuard should not be applied to concrete where no direct sunlight is present. Increase in floor temperature during the application may result in bubble formation at the surface during curing.

SX60 HealthGuard should not be applied to concrete with more than 4% moisture or in areas of high carbonation to prevent the development of carbamate and water spots on the surface

Application Method

Tools / Equipment

- Rake Trowels
- V-Notch Toothed Trowel (4 mm or more)
- Bull Float with spikes for adjusting thicknessBull Float Squeegee
- Metal Spike Roller
 - Spiked Boots for using while applying

Mohair Short Nap Paint Roller

Slow mixing drill

ROLLER APPLICATION						
Primer / Filler	SX60 Consumption	Minimum Thickness	Spreading Rate per pack	Tools Needed	Thinner	Notes
SX 2 if needed SX0 3 to 4 coats	1.5KG/1sqm/1mm	500 microns	Base + hardener = 60 m ²	Epoxy Roller Spiked Roller	None	All areas should be divided accordingly to the intended consumption / thickness

CAST APPLICATION						
Primer / Filler	SX60 Consumption	Minimum Thickness	Spreading Rate per pack	Tools Needed	Thinner	Notes
SX2 if needed SX0 3 to 4 coats	1.5KG/1sqm/1mm	1000 microns	Base + Hardener = 30 m ²	For 1mm thickness: use 3- 4mm V Notch. Spiked roller if needed For 2mm thickness: use 6- 7mm V Notch. Spiked roller if needed	None	All areas should be divided accordingly to the intended consumption / thickness



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Priming

- Mix the SX0 PrimeWell resin component before adding the hardener.
- Add the hardener component into the resin and mix at slow speed for a few minutes.
- Mixing at slow speed reduces the chances of bubble formation in the epoxy.
- Only mix the amount of epoxy that can be used within the specific pot life.
- Stir well both components and apply SX0 PrimeWell with a brush or an epoxy roller

Finish

- Apply SX60 HealthGuard once the primer coat has dried (24 hours).
- Mix the SX60 HealthGuard resin component well before adding the hardener into the resin. Once the hardener added, mix both
 components thoroughly at slow speed using a slow rotation mixer for approximately 4-5 minutes. The mixture will look very homogeneous
 signaling the end of mixing.
- Homogeneity can be tested by swiping the surface of the epoxy mixture using a stirring rod. If the surface levels easily and readily, the
 mixture is ready for application. If not, then the sample should be mixed further.
- SX60 HealthGuard can be applied by casting or by roller.
- When applying by roller, it is important to use a shorthaired mohair roller to get the best suitable surface by painting, without defects. This also accounts for better coverage by painting.
- When casting, pour the self-leveling SX60 HealthGuard directly on the primed and clean surface. If a 1mm thickness is desired use a 4 mm V-Notch trowel. For 2 mm thickness, use a 6 mm V-Notch trowel. Immediately after, pass over the poured surface with the spike roller to break-up possible air bubbles formations.
- Depending on the surface desired, SX60 HealthGuard can be applied with or without the addition of special quartz into the epoxy (broadcasted over the casted surface).

Pack Size

- SX60 base: Drums of 16.1 Kg
- SX60 hardener: Gallons of 3.78 Kg

Shelf Life

24 months from the date of production.

Storage and Handling

Care should be taken to avoid spillage. Product should be stored in a dry area and protected from freezing. Extreme temperatures may cause paint to become unusable. For example: freezing and thawing may cause paint to gel, and high heat may cause solid skin to form.

Safety

Use under well ventilated conditions. Do not breathe or inhale spray mist or sanding dust. Avoid skin contact; spillage on the skin should immediately be removed with suitable cleanser, soap and water. In case of eye contact, flush immediately with water for at least 15 minutes and seek medical attention immediately. If you have trouble breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical attention immediately.

Cleaning

Remove as much leftover product as possible from the application equipment before cleaning. Clean equipment immediately after use with mineral spirits or paint thinner. Do not empty product into drains or watercourses. Wash hands after use in warm soapy water.

Technical Assistance

Available through your local COLORTEK[®] Design Center or through your COLORTEK PAINTS[®] authorized distributor. For the location of the retailer nearest you, email us at <u>info@colortek.eu</u> or check our website <u>www.colortek.eu</u>.

Disclaimer

Product batches are subject to stringent quality control checks in conformity with ISO 9001:2008, Certificate CH12/1128.

The information submitted in this manual is correct to the best of our knowledge & experience. No liability whatsoever can be accepted based on the information supplied herein.

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