SCI COATINGS

TECHNICAL DATA SHEET

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SCI-4400/FC/SFC

Crack Filler Epoxy System
100% Solids

DESCRIPTION

SCI-4400 is a high-performance, two-component, sag-resistant structural epoxy system engineered for the repair of vertical and horizontal cracks. It delivers exceptional adhesion to concrete, masonry, wood, metal, and various plastics, ensuring durable, long-term structural restoration. The system is CFIA-compliant, making it suitable for use in regulated environments such as food-processing facilities. It is also offered in Fast Cure and Super Fast Cure versions to accommodate accelerated installation schedules and low-temperature applications without compromising performance.

ADVANTAGES

- Low odor, Solvent-free, low VOCs
- 100% solid
- Superior mechanical resistance
- Waterproof
- Maybe applied in several layers
- Maybe applied vertically
- Applies to many different surface materials

PRIMARY APPLICATIONS

- Industrial facilities
- Commercial spaces
- Institutional buildings

TECHNICAL DATA

Packaging	3 L (.750 gal.) or 425 ml or 11.34 L (3 gallon)
Color	**Part A:** Creamy White **Part B:** Creamy Yellow
Mileage per gallon	Varies according to application
Mix Ratio (by volume)	A : B = 2 : 1 (100:50)
Mix Ratio (by weight)	A: B = 100 : 46
Gel Time (100 g @ 25°C)	**SCI-4400:** 20 - 30 minutes **SCI-4400 FC:** - 15 - 25 minutes **SCI-4400 SFC:** 10 - 15 minutes
Solids Content	100% by weight and volume
VOC (g/L)	>40
Thinner Recommended	Xylene
Shelf Life	12 months (unopened, away from extremes)
Viscosity @ 25°C (cP)	**Part A:** 95 000 - 110 000 **Part B:** 95 000 - 110 000 **Mix:** 95 000 - 110 000
Specific Gravity	**Part A:** 1.21 **Part B:** 1.12

Physical Properties @ 23°C (73°F), 50% R.H.

Bond Strength (ASTM D4541)	>300 psi (substrate rupture)
Water Absorption (ASTM D570)	0.3 %
Tensile Strength (ASTM D638)	6500 - 7500 psi
Compressive Strength (psi) (ASTM D695)	13000 – 15000 psi
Elongation ASTM D638	3 - 4 %

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SCI-4400 Curing Details

Temperature	Foot Traffic	Light Traffic	Full Cure
10°C (50°F)	N.A	N.A	N.A
20˚C (68°F)	1 day	3 days	7 days
30°C (86°F)	1 day	36 hours	5 days

Recoat Window	Minimum	Max
10°C (50°F)	N.A	N.A
20˚C (68°F)	8 hours	24 hours
30°C (86°F)	6 hours	24 hours

SCI-4400 FC Curing Details

Temperature	Foot Traffic	Light Traffic	Full Cure
10°C (50°F)	N.A	N.A	N.A
20˚C (68°F)	1 day	2 days	7 days
30°C (86°F)	16 hours	2 days	5 days

Recoat Window	Minimum	Max
10°C (50°F)	N.A	N.A
20˚C (68°F)	4 hours	24 hours
30°C (86°F)	3 hours	24 hours

SCI-4400 SFC Curing Details

Temperature	Foot Traffic	Light Traffic	Full Cure
10°C (50°F)	2 days	5 days	10 days
20˚C (68°F)	1 day	2 days	7 days
30°C (86°F)	12 hours	24 hours	5 days

Recoat Window	Minimum	Max
10°C (50°F)	36 hours	2 days
20˚C (68°F)	2 hours	24 hours
30°C (86°F)	1 hour	24 hours

SURFACE PREPARATION

Old Concrete

Concrete surface must be cleaned and mechanically prepared using shotblasting, sand blasting, and/ or diamond grinding. All oils, sealers, curing agents, waxes and fats must be removed prior to product application. Do not apply onto wet substrates. Chloride, moisture, and pH levels should be checked prior to application. All cracks and substrate imperfections should be filled and repaired with SCI-4400 prior to application.

New Concrete

New concrete should be allowed to cure for a minimum of 30 days. Compression resistance of concrete must be at least 25 MPa (3625 lbs./inch2) after 28 days and traction resistance must be at least 1,5 MPa (218 lbs./inch2). Shotblasting, sand blasting, and/or diamond grinding is required to remove the surface laitance that appears during the concrete finishing and curing process. All cracks and substrate imperfections should be filled and repaired with SCI-4400 prior to application.

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MIXING

Materials should always be kept at a minimum temperature of 15°C (59°F) prior to use. Pour component B into component A using the proper mixing ratio of 2A:1B by volume. Mix both components for at least 3 minutes using a drill at low revolution (300 to 450 rpm) to reduce trapping of air. While mixing, scrape bottom and walls of container at least once to ensure a homogeneous mix. Only prepare quantity that may be applied during pot life of mixture.

APPLICATION

Apply mixed product on the prepared surface using a trowel of a putty knife.

CLEANING

Clean all tools and materials with the cleaner/thinner for epoxies. Wash hands and skin carefully with warm soapy water. Once product has hardened, it may only be removed through mechanical means.

RESTRICTIONS

- Minimum/Maximum temperature of substrate: 15°C / 30°C (59°F / 86°F).
- Maximum relative humidity during application and curing: 85%.
- Substrate temperature must be 15°C (59°F).
- Humidity content of substrate must be <4 % when coating is applied.
- Do not apply on porous surfaces where a transfer of humidity may occur during application.
- Avoid exterior use on substrates at ground level.
- Protect from humidity, condensation and contact with water during the 24-hour initial curing period.
- Surface may discolor in areas exposed to regular ultraviolet light.

HEALTH AND SAFETY

In case of skin contact, wash with water and soap. In case of eye contact, immediately rinse with water for at least 15 minutes. Consult a physician. For respiratory irritations, move affected person outdoors to fresh air. Remove contaminated clothes and wash before reuse.
Components A and B contain toxic ingredients. Prolonged contact of this product with the skin is susceptible to provoke irritation. Avoid eye contact. Contact with product may cause severe burns. Avoid breathing vapors released from this product. This product is a strong sensitizer. Wear safety glasses and chemical resistant gloves. A breathing apparatus filtering organic vapors approved by the NIOSH/MSHA is recommended. Always work in a properly ventilated area.

Consult the material safety data sheet for further information.

IMPORTANT NOTICE

All statements, recommendations and technical information contained in this document are accurate to the best knowledge of SCI COATINGS INC. The data relates only to the specific material designated herein. It may not be valid if used in combination with any other materials. It is the users' responsibility to verify suitability of this information for their own particular use, and to test this product before use. SCI COATINGS INC. assumes no legal responsibility for use upon these data. SCI COATINGS INC. assumes no legal responsibility for any direct, indirect, consequential, economic, or any other damage except to replace the product or refund the purchase price as set out in the purchase agreement.