



Technical data sheet

November 28, 2023
Revision #3



SCI-4400

Crack Filler Epoxy System, 100% Solids

DESCRIPTION	SCI-4400 is a two component, sag resistant structural epoxy system designed to repair vertical or horizontal cracks. It has excellent adhesion to concrete, masonry, wood, metal and plastics. This system complies with the Canadian Food Inspection Agency (CFIA).		
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		
TECHNICAL DATA	Packaging	3 L (.750 gal.) or 425 ML or 11.34 lt (3 gallon)	
	Color	Part A	Part B
		Creamy White	Creamy Yellow
	Mileage per gallon	Varies according to application	
	Shelf Life	12 months in original unopened factory sealed containers. Keep away from extreme cold, heat, or moisture. Keep out of direct sunlight and away from fire hazards.	
	Mix Ratio, by volume	A: B = 100:50	
	Mix Ratio, by weight	A: B =100:46	
	Gel time (100g)	20-30 minutes @ 25°C ()	
PROPERTIES @ 23°C (73°F) and 50% R.H.	Solids Content, by weight	100%	
	Solids Content, by volume	100%	
	Specific Gravity	Part A	Part B
		1.21	1.12
	Thinner Recommended	Xylene	
	Viscosity @ 25°C	Part A	Part B
		95000-110000	95000-110000
	Compression Resistance (psi), ASTM D695	13000-15000	
	Tensile Strength (psi), ASTM D638	6500-7500	
	Elongation %, ASTM D638	3-4	
	VOC(g/L)	>40	

Please note, that the indicated mileage is calculated for flat surfaces. A porous or imperfect surface will require more material in order to cover the same surface area.

	Recoat		Substrate Temp	Minimum	Maximum
			± 10 °C	N.A	N.A
			± 20 °C	8 hours	24 hours
			± 30 °C	6 hours	24 hours
	Curing Details	Substrate Temp	Foot Traffic	Light Traffic	Full Cure
		±10 °C	N.A	N.A	N.A
		± 20 °C	1 day	3 days	7 days
		± 30 °C	16 hours	2 days	5 days



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SURFACE PREPARATION	Old Concrete Concrete surface must be cleaned and prepared by shotblast, sand blasting, and/or diamond grinding to remove concrete laitance and surface contaminants. Any oil, sealers, curing agents, wax and/or fats must be removed prior to product application. Acid etching may be required (followed by a thorough rinsing) to open the pores of the concrete to accept a primer. Do not apply on wet substrates. Chloride, moisture, and pH levels should be checked 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 surface laitance that appears during the concrete finishing and curing process. A primer should be used to reduce out-gassing and promote adhesion.
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 or 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) above dew point measured. ■ 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 with 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.*
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