

Structural RENEWAL & Protection

manhole rehabilitation simplified

SL Structural Liner

PRODUCT DESCRIPTION

STRUCTURAL RENEWAL & PROTECTION SL (SR&P SL) is a silica fume based mortar that is a specially formulated, combination of processed cement, aggregates, silica fume and polypropylene fibers. When mixed with water, results in a dense, low rebound, high build mortar. The required low water to cement ratio ensures low permeability and adequate long-term strengths for most applications.

SR&P SL is designed to be spincast, hand applied, poured in place or wet process shotcrete applied.

RECOMMENDED USES

Any concrete and masonry surfaces where rehabilitation of an existing structure requires enhancement of the structural integrity and /or there is a need to stop inflow and infiltration.

- Sanitary Sewers
- Clarifiers
- Lift Stations
- Digesters
- Wastewater Treatment Plants
- Water Treatment Facilities

ADVANTAGES

Quality Controlled – materials proportioning, mixing and packaging ensures product consistency. Every production run of product is batch coded and tested prior to shipment.

Trowelable and Sprayable – Spincasts to a smooth consistent thickness, trowels easily after spray application or can be trowel applied on small placements.

Low Permeability – under 300 Coulombs creating an extremely dense product.

Sulfide Resistant – silica fume enhancement improves chemical resistance to H₂S attack.

PACKAGING & COVERAGE

SR&P SL is available in 50 lb. poly-lined bags – 60 bags per pallet. One 50 lb. bag (22.72 kg) of **SR&P SL** yields approximately .45 cubic feet and will cover approximately 10.2 sq. ft. at ½” thickness.

SURFACE PREPARATION

Surfaces to receive **SR&P SL** must be cleaned of all oil, grease, rust, scale, deposits and other contaminants to insure a proper bond. Concrete and masonry surfaces can generally be prepared by 3000 – 5000 psi pressure water blasting.

Excess water should then be removed by air blasting with an oil free air compressor to allow for a clean, damp surface for application of **SR&P SL**. Any hydrostatic leaks in substrate should be stopped with **SR&P PLUGnPATCH** or similar hydraulic cement product.

MIXING

For spincast, spray and trowel applications, mix 3 – 3½ quarts of potable water per 50 lb. bag of **SR&P SL**. For best results mix approximately 3 to 5 minutes with a low speed mortar mixer by first adding water, starting mixer and then adding SR&P SL until mortar is thoroughly mixed. A paddle and drill mixer may be used for single bag mixes.

PLACEMENT

Dampen all surfaces to which **SR&P SL** is to be applied to assure proper saturation. For spincast or wet process spray applications, the surface to be sprayed must be Saturated Surface Dry (SSD) and the process should start as soon as an SSD condition is achieved.

For troweling, the surface to be troweled must be Saturated Surface Dry (SSD) and all surfaces should be primed with a slurry coat of **SR&P SL** that is loose enough to be applied with a stiff mason’s brush. Scrub the slurry into the substrate and trowel on **SR&P SL** as soon as the slurry mix becomes tacky to the touch and before it dries.

For additional applications of **SR&P SL** allow first coat to completely dry before applying second coat.

PLACEMENT (continued)

SR&P SL can be spincast or wet process sprayed to a thickness of 2" vertically and 1/2" overhead in a single application. For hand troweled applications, SR&P SL can be applied up to 3" vertically and 1/2" thick overhead. Minimum thickness for spincast, wet process spray or hand trowel application is 1/2" thick.

IMPORTANT:

STORE IN A DRY PLACE IN ACCORDANCE WITH ACI GUIDELINES

WARRANTY

STRUCTURAL RENEWAL & PROTECTION

warrants its products to be free of defects in material and workmanship and will replace any product that has been proven defective and that has been applied in accordance with the manufacturer's recommended specifications.

STRUCTURAL RENEWAL & PROTECTION will replace any defective product.

CAUTION: Use of this product may be hazardous to your health. This product contains Portland cement and Silica sand. Prolonged inhalation may cause delayed lung injury including silicosis and possibly cancer. Avoid direct contact with skin and eyes. In case of contact, flush with plenty of water for at least 15 minutes. Contact a physician. Wash exposed skin areas promptly with water. Do not take internally. Keep out of reach of children. Please consult MSDS prior to use.

SR & P SL - TECHNICAL DATA:

		<u>1 day</u>	<u>7 days</u>	<u>28 days</u>
ASTM C-109	Compressive Strength	4000	8000	11,000
ASTM C-78	Flexural Strength	800	915	1050
ASTM C-882	Slant Shear	1400	3000	
ASTM C-496	Splitting Tensile	602	958	1156
ASTM C-469	Modulus of Elasticity	4,588,000 psi		
ASTM C-266	Set Time	Initial: 60 minutes Final: 18 minutes		
ASTM C-267	Chemical Resistance (sulfide solution)	No Weight Loss		56 days
ASTM C-1202	Permeability	300 Coulombs		
Test Temperature (Powder)	72° F	Water Content:		13.00%

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