



Liso

Cementitious Smoothing Patch

DESCRIPTION

Liso is a blend of specialty cements, portland cement, polymers and proprietary admixtures designed for filling and smoothing interior and exterior vertical concrete surfaces and non-wearing horizontal surfaces. **Liso** exhibits superior workability by maintaining a smooth, creamy consistency for easy troweling, rubbing or spreading. After applying, **Liso** may be sanded to achieve an exceptionally smooth, untextured finish. Its unique self-curing mechanism allows for rapid painting and sealing.

USES

Liso is ideal for a wide variety of concrete repairs:

- Resurfacing, rubbing and finishing of precast and tilt-up concrete products
- Cementitious rub for defective concrete formwork
- Refinish old, vertical, concrete surfaces
- Fill in pits, voids, chipped edges and defects in concrete and masonry
- Can be applied in applications from feathered edge to 1/2" thickness in confined void-filling applications such as air voids or bugholes resulting from poor consolidation

BENEFITS

- Color: Consistent light gray color match for concrete
- Adhesion: Polymer modified for increased adhesion so paints and coating bond easily
- Smooth: Maintains moisture for easy finishing
- Self-Curing: Paint or seal as soon as dry
- Consistent: Strict Quality Control testing and standards

SURFACE PREPARATION

All surfaces in contact with **Liso** shall be free of dirt, oil, grease, laitance and other contaminants that may act as bond-breakers. All unsound concrete should be removed to ensure a good bond. Moisten area prior to application. Always apply a test patch. Maintain contact areas between 50°F (10°C) and 90°F (32°C) prior to repair and during initial curing period.

APPLICATION THICKNESS

Featheredge - 1/2"

COVERAGE/YIELD

One 50 lb (22.7 kg) bag will cover approximately 115 ft² at 1/16" thickness. Coverage may vary depending on porosity of surface.

MIXING

For best results, use a mechanical mixer with rotating blades or use a heavy-duty 1/2" (15 mm) (or larger) low-speed, corded drill and mixing paddle #6 per ICRI Technical Guideline 320.5. Pre-wet mixer and empty excess water. Place 6-8 quarts of cool, clean potable water per 50 lb (22.7 kg) bag in mixer or mixing container, then add dry material. Mix on low RPM for a total of 3 to 5 minutes until a homogeneous mixture is achieved. Mix only enough material that can be placed within working time. Do not blend excess water as this will cause bleeding and segregation. Do not use any other admixtures or additives.

PLACING

Liso can be applied with a putty knife, trowel or sponge float. Place material consistently, without multiple layers. Avoid any air entrapment. For voids deeper than 1/2" depth, apply **US SPEC Quickset** to within 1/2" of final repair. Install in one consistent application for best color match. Material performs best when applied at cool periods in the day. Do not add water to applied material. Introducing water to already applied material will result in discoloration.

FINISHING AND CURING

Follow standard ACI curing practices. Exposed surfaces should be cured with a membrane forming cure and seal compound such as **US SPEC Hydrasheen** or **US SPEC Hydrasheen 30%**.

STORAGE

Normal cement storage and handling practices should be observed. Store material in an interior, cool, dry place. Shelf life is one year in original, unopened container.

LIMITATIONS

In addition to limitations already mentioned, please note the following. Do not apply when the surface or ambient temperature is below 50°F (10°C) or expected to fall below 50°F (10°C) within 48 hours. Do not apply over surfaces that are frozen or contain frost. Do not apply over any active faults or cracks in the substrate without addressing any movement that may occur. Allow concrete to fully cure for 28 days before use of this product. This material is not intended for use as a horizontal wearing surface. Setting time will speed up in hot weather and slow in cold weather. For hot and cold weather applications, contact your US SPEC manufacturer's representative.



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PHYSICAL PROPERTIES

All Physical Property testing performed in laboratory conditions of $73.5 \pm 3.5^{\circ}\text{F}$ ($23 \pm 2^{\circ}\text{C}$) and a relative humidity no less than 50% unless otherwise determined by the test method or specification. All results represent **Liso** with 8 quarts water unless listed otherwise. Tests are conducted under standardized conditions for comparative purposes, and results may not be representative of performance under field conditions.

Property and Test Method	1 Day	7 Days	28 Days
Compressive Strength ASTM C109	800 psi (5.52 MPa)	1,200 psi (8.27 MPa)	1,500 psi (10.34 MPa)
Rate of Set ASTM C266	Working Time 1:20	Initial 4:00	Final 6:25

DANGER

This product contains Crystalline Silica (CAS# 14808-60-7) and Portland Cement (CAS# 65997-15-1). Harmful if swallowed. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause cancer. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Do not breathe dust. Keep away from children. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/international regulations.



WARNING: Cancer and Reproductive Harm -
www.P65Warnings.ca.gov

FIRST AID

If swallowed: Immediately call a poison center/doctor. Rinse mouth. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell.

MANUFACTURER/TECHNICAL SERVICE

Contact your US SPEC manufacturer's representative for the most current product information. Always read and follow the warnings and instructions on the most current technical data sheets and safety data sheets (SDS), available online at www.usspec.com.

US MIX

112 South Santa Fe Drive
Denver, CO 80223
Tel: 303.778.7227 Fax: 303.722.8426
Web Site: www.usspec.com

LIMITED WARRANTY: The manufacturer warrants that this product is free from defects in material and workmanship, and will perform per the manufacturer product literature in effect at the time of purchase. This warranty is for one (1) year from the date of purchase. Any implied warranty of merchantability or fitness for a particular purpose is limited to the duration of this express warranty. This warranty applies only if the product is used, in strict accord with the manufacturer published instructions. The sole and exclusive remedy under this warranty is replacement of the defective product or refund of the purchase price, at the manufacturer's option. CONSEQUENTIAL, SPECIAL, AND INCIDENTAL DAMAGES ARE NOT RECOVERABLE UNDER THIS WARRANTY. All claims under this warranty must be submitted to the manufacturer by calling 303-778-7227. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.