

PRODUCT NAME

Si-Rex03™
Silicone Resin Exterior Paint

NORTH AMERICA DISTRIBUTOR/MANUFACTURER

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DESCRIPTION

Si-Rex03 by **Klaas Coatings** is a state-of-the-art exterior architectural wall and facade coating specifically for use on concrete and masonry substrates. Use of an advanced silicone resin binder system delivers a sophisticated matte finish with outstanding performance benefits.

Si-Rex03 not only protects the substrate with excellent water repellency – it also allows the substrate to breathe almost unhindered. This property minimizes potential for peeling and flaking from entrapped moisture. Its strong water repellency also has a self-cleaning effect and excellent resistance to microbial attack. These innovative features make the surface look cleaner for longer.

The silicone resin binder is not just about water-repellency – its tough, quartz-like structure acts as "reinforcing" for excellent weather resistance that resists chalking and outlasts conventional paint systems. Repaint intervals of 20-25 years versus 7-8 years for that of conventional paints mean significantly lower maintenance costs.

Using only UV resistant inorganic oxide pigments – pigments that do not degrade with outdoor UV exposure – **Si-Rex03** comes in a range of 200 standard earthy, fade resistant colors suited perfectly for concrete and masonry surfaces and a natural look that conveys quality.

While durability and protection are key benefits of **Si-Rex03**, it is the look and finish that people notice; the mineral matte surface eliminates gloss and side sheen and colors appear clean and true whilst help hide surface irregularities in mineral substrates.

Exterior use only. Not for surfaces horizontal (roofs, decks) that can pool water or below-grade prone to hydrostatic pressure.

KEY BENEFITS

Excellent Water Repellency

- Protects the substrate by keeping it dry
- Provides a self cleaning effect
- Prevents microbial attack

High Vapor Permeability

- Open structure allows entrapped moisture to escape
- No effect on thermal conductivity and insulation because the substrate remains dry

Quartz-like Structure

- Ultimate weather and UV resistance
- Resistance to dilute alkali and acids
- High resistance to fire and heat
- Tough and abrasion resistant

Mineral Matte Finish and Inorganic Pigments

- Matte finish hides substrate irregularities
- In harmony with mineral substrates
- Resist fading - even under severe UV exposure
- 200 standard colors in natural tones

Adaptable and Problem Free

- Easy to paint
- Computer controlled color processing
- High opacity
- Can be applied to hot, cool, dry or dampish conditions without stresses forming on drying
- Apply with roller, brush or spray

Water Based

- Easy clean up
- Environment friendly
- Low range VOC (Volatile Organic Compounds)

AREAS OF USE

	Priming	Si-Rex03
Cast-in-Place Concrete	Recommended	yes
Precast Concrete	Recommended	yes
Cement Stucco/Plaster	Required	yes
Skim Coat	Required	yes
Brickwork	Recommended	yes
Blockwork	Required	yes
Fiber Cement Sheet	Required	yes
Stone	Required	yes
Wood		no
Metals		no
Glass		no
Plastic		no
Previously Painted		yes

APPLICATION DETAILS

Surface Preparation

All surfaces should be clean and free from contaminants such as dust, dirt and release oil. Surfaces may be damp but not wet.

Allow new concrete, masonry and stucco to cure a minimum of 14-days prior to application.

Porous Surfaces

Stucco, skim coat, blockwork, fiber cement sheet and stone surfaces require priming with **Si-Prime™** or **Cremsil™** by **Klaas Coatings** prior to application.

Non-Porous Surfaces

For cast-in-place concrete, precast concrete and brickwork priming is highly recommended with **Si-Prime™** or **Cremsil™** by **Klaas Coatings** prior to application.

Previously Painted Surfaces

a) **Good Condition** - The existing paint must show no signs of cracking, peeling or flaking. The surface must be cleaned to remove all dirt and contaminants. If surfaces are glossy, abrade with wire brush to create an adequate key.

Data Sheet



APPLICATION DETAILS (Continued)

- b) **Poor Condition** - Remove all cracking, peeling and poorly adhering paint. Clean surface removing dirt and contaminants.

Cracking

- a) **Hairline Cracks** - Paint cracked areas first by brush filling to be flush with surface prior to the first coat.
 b) **Larger Cracks** - either patch with suitable filling compound to match the surface texture or add fine silica sand to paint to make up a putty. Fill in thin layers to be flush with the surface.

Holes, Honeycombs and Voids

Fill with a suitable filling/patching compound that matches the texture of the surrounding substrate (i.e. smooth finish for fiber sheet and in-situ concrete or grainy for stucco).

PAINTING RECOMMENDATIONS

Roller, brush, conventional and airless spray. Note: Whilst touch dry within 15-minutes or so, and recoated within 24-hours, the coating requires 7-10 days to fully cure. Mix well before use.

PRODUCT INFORMATION

Color	200 Standard Colors - Can Color Match
Finish	Mineral Matte
Solids, by Weight	55% +/-5%
Solids, by Volume	36% +/-3%
Typical Thickness	1.5mil (34-38 µm) DFT / 5.0mil (125 µm) WFT per coat
Theoretical Coverage	280-360ft ² /US Gallon (7-9m ² /Liter) per coat.
Practical Coverage	Allow Appropriate Loss Factors

TYPICAL PERFORMANCE FIGURES

Moisture Resistance ~ ASTM D 6904, TT-C-555B	Pass
Water Vapor Resistance ~ ASTM E 96	67.9 Perms
Adhesion on Concrete ~ ASTM D 4541	A Pull-Off Strength of 710 psi, 4.9 N/m ²
Freeze-Thaw Resistance ~ 50 Cycles to West Virginia DOT Protocol	No Chalking, Checking, Cracking or other deleterious effects
Mold Resistance ~ ASTM D 3273 / D 3274	Rating of 9 (10 = best on scale of 1-10)
Abrasion Resistance ~ ASTM D 968	323 liters of Falling Sand
Accelerated Weathering ~ ASTM G 154 500-hours UVB cycling	No Chalking, Checking, Cracking or Color/Gloss Change
Salt Spray Resistance ~ ASTM B 117 1,000-hours	No Chalking, Checking, Cracking or other deleterious effects
Flexibility ~ ASTM D 522 Method A	No Cracking or Peeling at the 0.125" apex of conical mandrel
VOC ~ EPA Method 24	1.5 lbs/gal, 175 g/L (light tint base)

APPLICATION

Application Method	Roller, Brush and Conventional and Airless Spray
Coats	2 Coats
Priming	Si-Prime™ or Cremsil™ on porous surfaces and in higher temperature regimes to help assist with wet edge Touch Dry 15 minutes typical at 75°F
Drying Time @ 25°C (77°F) & 50% Relative Humidity	Water Resistant 6 hours Re-Coat Overnight (indefinite maximum)
Application Temperature Range (surface temperature)	50°F to 90°F (10°C to 32°C)
Clean-up	Water (refer to Material Safety Data Sheet)

Note: The information presented is intended as a guide only and is correct to the best of our knowledge at the time of publication. It should not be considered as a definitive approval for suitability for a particular purpose. Please contact the manufacturer, distributor or approved applicator for confirmation of suitability.

COVERAGE

Minimum of two (2) coats @ 280-360ft² / US gallon per coat (7-9m² / liter per coat).

Note:

- a) Surface roughness and/or porosity will increase application rates.
 b) Some deep tint base colors may require three coats to achieve full opacity.

COLOR RANGE

200 Standard Colors - See **Klaas ASF ColorGuide**.
 Special matches to other charts are available.

WARRANTY

Minimum 15-Year durability where substrate is sound and manufacturer's recommendations have been followed. See **Klaas Coatings** warranty guidelines.

PACKAGING

5 Gallon Pail (18.93 Liters)
 1 Gallon Can (3.79 Liters)