Si-Rex03

Datasheet

Klaas Si-Rex03™
Exterior Matt
Silicone Resin Exterior Paint

VOC <50g/Litre

DESCRIPTION

Si-Rex03 by Klaas Coatings is a state of the art coating formulated for use on concrete and masonry substrates. Using an advanced silicone resin binder , it delivers a sophisticated looking mineral matt finish with outstanding performance benefits.

Si-Rex03 is unique because it protects the substrate with excellent water repellency while allowing the substrate to breathe almost unhindered. This unique property lowers the relative humidity of the substrate over time. A dry substrate prevents corrosion, degradation and maximises insulation performance. Its strong surface beading also provides a self cleaning effect and excellent resistance to microbial attack. These innovative features make the surface look cleaner for longer.

The silicone resin doesn't just provide water-repellency, its tough, Quartzlike structure acts as "reinforcing" giving Si-Rex03 excellent weather resistance. Si-Rex03 will resist chalking and outlast conventional paint systems. Longer repaint intervals mean less cost.

While durability and protection are key benefits of Si-Rex03, it is the look and finish that people notice. The mineral matt surface eliminates all gloss and side sheen. This allows colours to appear clean and true whilst hiding the surface irregularities which are unavoidable in mineral substrates.

By only using the most durable and fade resistant inorganic oxide pigments, Klaas Coatings has produced an earthy colour range that perfectly suits concrete and masonry surfaces. This combination of earthy colours and matt finish avoids the "plastic-coated look" of conventional paint systems. Si-Rex03 rovides a softer, established and natural look that conveys a sense of quality.

KEY BENEFITS

Highly Water Repellent
High Breathable
Self Cleaning Effect
Superior Weather Resistance
Very Long Life and repaint interval
Low VOC (after tinting)
Resist mould and algae
Mineral Matt Finish

AREAS OF USE

Render
Concrete
Fibre Cement Sheeting
Brick
Masonry
Skim Coat (Polymer Modified)
*Not for timber / metal or plastics

APPLICATION

	Method	Theoretical Coverage	Typical DFT	Touch Dry*	Re-Coat*
PRIMER Si-Prime	Roller, Brush & Spray	5m²/L	N/A	30 min	6 hours
FIRST COAT Si-Rex03	Roller, Brush & Spray	8m²/L	40um	15 min	2 hour (post touch dry)
TOPCOAT Si-Rex03	Roller, Brush & Spray	8m²/L	40um	15 min	2 hour (post touch dry)

* Figures nominated are measured at 25C & 50% RH. Drying times will be extended by reduced temperatures and increased relative humidity . Ambient temperature must not fall below 10°C during the drying period and RH must not exceed 85%.

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BENEFITS

Excellent Water Repellency

Protects substrate by keeping dry

Provides 'Self cleaning effect"

Prevents microbial attack (algae/mould)

Protects concrete against water/chlorides

High Vapour Permeability

Microporous allows moisture to escape

Lowers substrate relative humidity / dries out

Optimises substrate insulation by keeping dry

Quartz-like Structure

Ultimate weather and UV Resistance

Resistance to dilute acid & alkalli

High resistance to fire & heat

Tough and abrasion resistant

Long term performance & protection

BENEFITS CONT.

Mineral Matt Finish & Inorganic Pigments

Hides substrate irregularities and waviness

In harmony with mineral substrates

Resists fading - even with severe UV exposure

Adaptable & Problem Free

Easy to paint

Computer controlled colour processing

High opacity

Broad application window hot/dry to cool/damp

Excellent touch up

Water Based

Easy clean up

Low VOC

Environmentally Friendly

Easy Transport

PRODUCT INFORMATION - AS/NZS 1580

Finish	Matt <5%@60^{O}
Density	1.38-1.41g/cm^{3}
Solids (by weight)	55%
Solids (by volume)	36%
Typical thickeness per coat	125um (WFT) 45um (DFT)
Theoretical Coverage	7-9Sqm /Litre
Practial Coverage	Allow appropriate Loss
Clean Up	Water
VOC	<50g/L
Temperature Range*	10^{O}C – 32^{O}C
Packaging	15 Litre Pail

PERFORMANCE - EN/ISO

Liquid Water Transmission	<0.05kg/m$^{2h0.5}$ W-value
Water Vapour Permeability	0.13m/cm^{3} Sd -value
Abrasion 200hrs QUV	10,000+
Adhesion	3.2N/mm
Accelerated QUV-B	1000 Hrs No Change

PERFORMANCE USA/ASTM

Moisture Resistance	ASTM D 6904, TT-C-555B	Pass
Water vapour Resistance	ASTM E 96	67.9 Perms
Adhesion on Concrete	ASTM D 4541	Pull off Strength 710psi, 4.9N/m^{2}
Freeze Thaw Resistance	50 Cycle West Virgina DOT	No Chalking, Checking, Cracking or other deleterious effects
Mould Resistance	ASTM D3273 / D 3274	Rating 9 (10 = best on scale 1-10)
Abrasion Resistance	ASTM D 968	323 Litres of falling sand
Accelerated Weathering	ASTM G 154 500hrs UVB Cycle	No Chalking, Checking, Cracking or colour gloss change
Salt Spray Resistance	ASTM B 117 1000hrs	No Chalking, Checking, Cracking or colour gloss change
Flexibility	ASTM D 522 Method A	No Cracking or peeling and the 0.125o apex of conical mandrel
VOC	EPA Method 24	175g/L

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COLOUR

Si-Rex03 may be tinted to 10,000+ colours using Klaas ASF tinting system. These tinters are Zero VOC and APEO[1] free and will not contribute to the VOC of the base product after tinting. Please not that only inorganic pigments will provide lightfast performance in exterior applications.

WARRANTY

15 years against cracking, peeling & blistering where the product has been applied according to manufacturers displayed directions and in accordance with AS 2311, the painting of buildings.

NEW SURFACE PREPARATION

Surfaces to be painted must be clean, dry and free of contaminants, including dirt, grease, efflorescense, mould & mildew.

Allow new render, concrete to cure for a minimum of 28 days prior to application of Si-Prime prior to topcoating with Si-Rex03. Render requires polymer modification.

PREVIOUSLY PAINTED

Surfaces to be painted must be clean, dry and free of contaminants, including dirt, grease, efflorescense, mould & mildew.

Remove all peeling, cracking, loosely adhering material, sand smooth and dust down.

Repair any damaged area/s with appropriate fillers and prime using Klaas Underprep

SAFETY

Refer to Product Label and product MSDS 10-101

SPECIFICATION

Refer to Klaas specifications at **www.klaascoatings.com.au**

Product Code: 10-101

MANUFACTURERS DETAILS

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MADE IN AUSTRALIA

[1] **APEO (Alkylphenol ethoxylate)** is a degradation product which is very toxic to aquatic organisms. It is not easily degradable and has a tendency to bioaccumulation.

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