

CIKOseal RB



Multi-purpose bitumen emulsion reinforced with rubber polymer

Description

CIKOseal RB is a rubberised bitumen emulsion used in several applications such as damp-proof and waterproof protective coating for horizontal and vertical applications over concrete; mortar and CMU surfaces below and above grade.

CIKOseal RB is an anionic slow setting asphalt emulsion that also serves as a tack coat for better adhesion of asphalt pavement surfaces.

Special grade of bitumen is emulsified and reinforced with rubber and polymers along with other specialty additives to form a flexible seamless coating upon drying and exposure to atmosphere.

Properties & Advantages

- Single component product easy to apply.
- Multipurpose and versatile, water/damp proof and curing compound as well as vapor barrier.
- Applicable by brush, roller or spray.
- Fast drying allowing fast turnaround.
- Suitable for application on irregular surfaces.
- Slow-setting anionic surfactant.
- Provides excellent adhesion on wide range of substrates.
- Resistant to chlorides, sulphates and other soil chemicals.
- Water based, non-toxic, asbestos free and non-flammable.
- Water resistant
- Low water vapor transmission

Application Area & Uses

- Tack coat on asphalt pavement surfaces.
- As damp-proof and waterproof coating over concrete foundations, back filled retaining walls, shallow sewage pits and pre-casted concrete items, etc.
- Wet area waterproofing such as bathrooms, kitchens, etc.
- Vapour barrier and dampproof coating in insulation facades systems and sandwich panels constructions

Applicable Standards

CIKOseal RB complies with minimum performance requirement of the following standard specifications:

- ASTM C 309 (Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete).
- ASTM D 977, type slow setting, grade SS-1h. (Standard Specification for Emulsified Asphalt for use in pavement construction).
- ASTM D1227, type III class 2. (Specification for Emulsified Asphalt Used as a Protective Coating for Roofing).

Physical properties

Form	High viscous liquid
Colour	Dark Brown to black
Residue by distillation ASTM D6997	60 ± 3 %
Specific Gravity/Density	1.06±0.02 kg/L
Permanent Service temperature	-5°C to +80°C
Rubber and polymer content	Min. 10%
Elongation at Break ASTM D412	>700%
Tensile Strength ASTM D412	>1.5 N//m ²
Drying time ASTM C309 (25°C, 50% RH)	≤ 3 hours
Water Loss ASTM C156	≤0.05 kg/m ²
Flexibility ASTM D2939	No cracks and no loss of adhesion
Direct Flame ASTM D2939	No observed bleeding of oily material Little coating char in place
Water Resistance ASTM D2939	No blistering and no re-emulsification
Heat resistance ASTM D2939	No sagging And No slipping

Storage Stability (24 hours) ASTM D6930	<1 %
Sieve Test ASTM D6933	<0.1 %
Penetration (25°C, 100g, 5s) ASTM D5	60 ± 15 (0.1 mm)
Ductility (25°C, 5 cm/min) ASTM D113	110±20 cm
Solubility in Trichloroethylene ASTM D2042	99±1 %

Chemical Resistance:

CIKOseal RB is resistant to a wide range of chemicals when tested in Accordance to ASTM D543 at ambient conditions for a period of 7 days following the patching method. Specific data is available as per the following table:

Test Solution	Observation & Test Result
Ammonium hydroxide (10%)	No Characteristics Observed (Resistant)
Sodium hydroxide (60%)	No Characteristics Observed (Resistant)
Sodium carbonate (20%)	Slight discoloration but no disintegration (Resistant)
Ethanol (50%)	No Characteristics Observed (Resistant)
Washed sand mixture	Slight discoloration but no disintegration (Resistant)
Agricultural soil mixture	Slight discoloration but no disintegration (Resistant)
Sulphuric acid (30%)	No Characteristics Observed (Resistant)
Hydrochloric acid (10%)	No Characteristics Observed (Resistant)
Nitric acid (10%)	No Characteristics Observed (Resistant)

Coverage & Recommended thicknesses

1L of CIKOseal RB theoretically covers 1 m² achieving 1000 microns WFT equivalent to 600 microns DFT.

When used as a waterproof coating it is recommended to apply minimum 4 coats to achieve 720 microns DFT (1200 microns WFT).

When used as a damp-proof coating it is recommended to apply minimum 2 coats to achieve 400 microns DFT (650 microns WFT).

When used as a vapor barrier coating it is recommended to apply minimum 2 coats to achieve 300 microns DFT (500 microns WFT).

When used as film forming curing compound it is recommended to apply minimum 1 coat to achieve 150 microns DFT (250 microns WFT).

Consult CIKO Technical department for further assistance and advice.

The above given coverage figures are theoretical. Actual coverage may be reduced depending on the substrate type, substrate condition, substrate porosity, wastage and finish.

Application Instructions

Surface preparation of Cementitious substrates

The substrate shall be free from all loosely adhered particles, efflorescence, dust, oil, grease or any other contamination. In case of oil spillage, proper treatment should be carried out on the surface. All potholes and wider cracks must be repaired using suitable the suitable CIKO's concrete repair material and allow initial curing.

Finally, use an electric air blower or air compressor to totally remove any type of dust or debris prior proceeding.

Surface preparation of Metal substrates

Wire brush to remove rust, mildew and loose paint. In case of corroded surfaces, proper priming shall be done with the suitable water-based rust converter primer such as: Corverter Rust Primer.

Mixing

CIKOseal RB is a single component product that requires stirring and mixing using an adjustable speed drill-paddle assembly or any other suitable means to ensure a homogenous solid distribution and eradicate any chances of settlement.

Priming

Ensure the surface is free from dust and loose particles and evaluate the surface porosity and dryness following a simple on-site testing method by water, if the surface absorption was noticed fast

without leaving a damp mark, apply a prime coat using CIKOprimer WB using brush, medium nap high quality roller or sprayer. Alternatively, CIKOseal RB diluted with 20% clean water and mixed well using an adjustable speed heavy duty drill paddle assembly may be used as primer.

Allow the prime coat to dry for at least 2 to 4 hours depending on prevailing ambient conditions.

Application method

Apply CIKOseal RB on properly cleaned or primed surface using brush, roller or spray at a consumption rate ranging between of 0.25 and 0.35 L/m² and allow drying for 2 up to 4 hours prior proceeding with the application of further coats. Care should be taken to coat the surface without leaving any gap. Further coats shall be applied at right angle to the precedent. Total DFT and number of coats depend on application area and method as well as service life and performance requirements. Consult CIKO technical Service department for further support.

Curing, Protection and Subsequent Activities

The firm setting of CIKOseal RB is achieved after minimum 24 hours and maximum 48 hours depending on prevailing ambient temperatures and conditions. Protect the applied surface from any source of water or rain within the first 24 hours of application. After then subsequent activities may take place including installation of protection boards, polyethylene sheets, etc.

Packaging

CIKOseal RB is available in 20 litre pails and 200 litre drums.

Shelf life

CIKOseal RB has a shelf life of 12 months in unopened pails or drums and if stored in accordance with CIKO instructions.

Legal Notice and Warranty

CIKO warrants this product to be free from manufacturing defects and to meet the technical properties stated in the current Technical Data Sheet, if used as directed within its shelf life. Satisfactory results depend not only on quality of product but also on many factors beyond our control. CIKO makes no other warranty or guarantee, express or implied, including warranties of merchantability or fitness for a particular purpose with respect to its product. The sole and exclusive remedy of purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the sole option of CIKO. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by purchaser. CIKO will not be responsible for any special incidental, consequential including lost profits or punitive damages of any kind. Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on CIKO's present knowledge and experience. However, CIKO assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. CIKO reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified expert.

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All CIKO products are manufactured under a strict management system conforming to and in compliance with requirements of international standards of Quality, Environmental, occupational Health and Safety ISO 9001, ISO14001 and ISO45001.

Storage

CIKOseal RB should be stored under enclosed shaded area away from direct sunlight at temperatures between 5°C – 35°C.

Precautions & Recommendations

- Not to use over standing water.
- The ambient temperature during application must be between 5 – 40°C.
- Where harsh service conditions such as high-pressure underground water and severe climate conditions, it is recommended to use CIKOproof PUR-650.

Health & safety

CIKOseal RB should not come in contact with eyes or be swallowed. Applicator should wear appropriate clothes, gloves and goggles. Use of barrier cream is recommended to provide additional skin protection. If comes in contact with eyes, flush with plenty of fresh water and seek medical advice.

Refer Material Safety Data Sheet for further details.

Technical Support

For further technical support, do not hesitate to contact CIKO team at any time as CIKO offers on and off-site services to end users, specifier and contractors.

More from CIKO Middle East

A wide range of construction chemical products are manufactured by CIKO Middle East which includes:

- Concrete admixtures and additives
- Waterproofing and damp-proof coatings
- Surface treatments
- Flooring and toppings
- Grouts and anchors
- Tile adhesives and grout
- Concrete repair materials
- Adhesives and bonding agent
- Protective coating
- Joint Sealants and Moulding compounds
- Ancillaries