ANTI-CORROSION AND SECONDARY CONTAINMENT

Protection for surfaces exposed to corrosive chemicals, moisture and wet conditions.

ROBEX

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RX Industry H.C.R

RX Industry H.C.R Lining System is a polymer urethane with two components - 100% solids and a spray applied liquid coating that has been formulated to give good physical properties and ease of application.

Serious chemical spillages often cause irreversible damage to the ecological wellbeing of our environment, resulting in significant loss to either animal or marine life, and many instances the entire ecology of the area.

Legislation demands that better awareness regarding the protection of these areas is implemented in an effort to prevent further contamination and destruction of our environment.

When mixed, the components set rapidly to form a glossy, tough, durable, waterproof elastometric coating with excellent resistance to abrasion and a wide range of chemicals without any additional heat cure.

RX Industry H.C.R Lining System can be spray applied to a wide variety of substrates to provide a tough, seamless coating of any desired thickness from 0.5mm upwards.

Robex SA (Pty) Ltd offers a range of liners that provide peace of mind once applied. Our RX Industry H.C.R has been specifically developed to provide a liner which exhibits the following properties:

- **Exceptionally Quick Curing** - Limiting downtime of areas.
- **Fantastic Flexibility** - Up to 380% elasticity, essential when stress is applied to bund walls to prevent leakage of chemicals.
- **Spray Applied** - Detailed areas are properly protected.
- **Liquid Liner** - No joints or seams, normally to the point of failure in conventional liners.
- **UV Stable** - Virtually unaffected by harmful ultra violet rays.
- **Tough and Durable** - High resistance to both impact and abrasion.
- Incredible Chemical Resistance to most acids and alkalis.
- Can be applied to contaminated areas with the incorporation of our geo-textile membrane

RX Industry H.C.R is the ultimate in flexible bund lining systems and will provide extended service life to structures or areas protected.

Technical information

Technical Characteristics

Hardness (°Shore A)	80 - 85	
100% Modulus (MPa)	5.0	ASTM D412
300% Modulus (MPa)	9.0	ASTM D412
Tensile Strength (MPa)	10.0 - 14.0	ASTM D412
Elongation at break (%)	350 - 400	ASTM D413
Tear Strength (kN/m)	35.0 - 40.0	ASTM D624
Abrasion Resistance (mm3 loss)	150	DIN 53516
Taber Wear Index 1000 cycles. 1000g wt, H22 wheel	125	ASTM D4060-95
Specific gravity @25°C	0.8 - 1.0	7 days

Chemical Resistance

A: Good Resistance | B: Moderate/Poor Resistance | C: Not recommended

5% Acetic Acid	A	20% Phosphoric Acid	B
Toluene	C	5% Hydrochloric Acid	A
15% Sodium Chloride	A	Ethylene Glycol	B
5% Sulphuric Acid	A	Sea Water	A
5% Nitric Acid	B	MEK	C
Motor Oil	A		

Please note the above tables are intended as a guide only.
For information on specific applications Robex SA should be contacted.

RX Industry CR

Robex Industry CR is a rapid-curing, seamless coating system based on Methyl Methacrylate (MMA) technology. It is specifically formulated for use in areas of high traffic and chemical exposure.

Advantages for owners/specifiers, engineers and contractors.

Owner/specifier

- Fast turnaround
- High chemical and biological resistance
- Non-absorbent surfaces
- Long service life
- May be applied in subzero temperatures

Engineers

- Fully bonded - reduces the risk of detachment impact/tracking
- Wide temperature range of application
- Semi-flexible
- Various degrees of non-slip finishes can be created.

Contractors

- Rapid application, up to 150m^2 per day
- Applied in the widest range of climatic conditions (-30°C to +35°C)
- Problem solving solutions for clients

Robex Hi-Mech Liner - Chemical Resistant

Robex Hi-Mech Liner CR is a vinyl ester resin combined with graded aggregates and state-of-the-art levelling agents, formulated for use in areas where standard resin systems will simply fail. The Hi-Mech systems will perform in even the most arduous conditions, providing customers with peace of mind.

Product information

- **Colours:** The material can be coloured using either coloured quartz aggregates or pigmented sealer coats.
- **Film Thickness:** RX Hi-Mech Liner CR is designed to be applied at the thickness of between 4-6mm, however, systems can be formulated to meet the client's needs.
- All installations are performed by Robex in-house application teams.
- Extended life expectancy is provided due to the formulation of the products and guarantees are issued to reflect increased life expectancy, providing that pre-determined maintenance programme is adhered to.

Features and Benefits

- The cured system provides exceptional thermal shock resistance, this is a vital feature of the product, particularly in areas where either high temperatures or steam is prevalent
- Excellent resistance to most acids, solvents and alkalis. (Refer to chemical resistance table.)
- RX Hi-Mech Liner CR has High resistance values to both mechanical impact and abrasion.
- The cured system has been formulated to minimise shrinking and crazing, therefore providing a stable and predictable finished product with no stress-related cracking.
- An area protected with RX Hi-Mech Liner CR offers ease of cleaning and can be applied with various degrees of non-slip.
- The rapid curing resin system reduces the high costs normally associated with product downtime.
- RX Hi-Mech Liner CR offers a product that is capable of being used in service areas where the temperature reaches 160°C.

Technical Information

The figures that follow are typical properties achieved in laboratory tests at 20°C and at 50% Relative Humidity.

Temperature (Resistance)	160°C max - SATM
Chemical Resistance	See chart below
Barcoal Hardness	> 40 (ASTM D 2583)
E-modulus	24 GPa (ASTM D 695)
Volume Shrinkage	< 0.003% Rill 4 2.5.3.2.1
Compressive Strength	120 mPa (ASTM D 695)
Flexural Strength	42 mPa (ASTM D 790)
Tensile Strength	23 mPa (ASTM D 638)
Adhesion	> 4mPa (Note: Substrate failure)
Adhesion	2.0 Approx.
Speed of cure	**20°C**
• Light Traffic	• 12hrs
• Full traffic	• 24 hrs
• Full Chemical Cure	• 72hrs

Chemical Resistance Chart

Chemical based of system	RX Hi-Mech Liner CR
Acetic Acid - 30% at 20°C	*
Acetic Acid (glacial) - 100% at 40°C	*
Citric Acid - 30% at 20°C	*
Citric Acid - 100% at 100°C	*
Hydrochloric Acid - 10% at 20°C	*
Hydrochloric Acid - 37% at 80°C	*
Lactic Acid - 10% at 20°C	*
Lactic Acid - 100% at 100°C	*
Nitric Acid - 10% at 20°C	*
Nitric Acid - 50% at 20°C	*
Sodium Hydroxide - 50% at 20°C	*
Sodium Hydroxide - 50% at 80°C	*
Sulphuric Acid - 20% at 20°C	*
Sulphuric Acid - 95% at 20°C	*
Ethanol, Butanol and Methanol Sugars	*
Service conditions:	
• Steam cleaning	• *
• Maximum temperature	• 145 -160°C
• Ultimate compressive strength (mPa)	• 120+

We take pride in the quality of our products and strive to provide the best in customer service.

Solutions to problems around the world.

Contact us

Get in touch with our team for any enquiries:

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