

Waterproofing and Linings System



- **Liquid Tanks Lining, Potable Water and Chemicals**
- **Lining of Containment Structures**
- **Waterproofing (water excluding) for Concrete and Steel structure**
- **Continuous Membrane waterproofing**

RezCoat Waterproofing and Linings systems are:

- **Tough and Impermeable**
- **Provides Excellent Cohesive Strength**
- **High Bond Strength**
- **Extends Structural Life**

The Rezcoat range of wet and applied membranes provide tough, resilient barrier for the concrete and steel structures which they are applied. Our products are applied in most industrial applications incorporating Waste Water, Potable Water, Oil and Chemical Containment, Tanking for Undergrounds and Linings for Industrial Tanks.

Our Potable Water Linings are non – toxic with WRC Certificate of Approval



- Materials provide sufficient elasticity to bridge minor cracking
- Crack bridging in excess of 2mm in many of our systems
- Simplified maintenance
- Fit for purpose Polyurethane surface resistance to chemicals
- Solar exposed PU systems meet the challenges of exposure and UV resistant
- Clients reap the financial rewards for low maintenance
- Systems are flexible and resilient
- Liquid containment and exclusion depends on sound quality control
- Technical inspection and control team carries out On Site Quality Controls
- The Lining Systems are all designed capable of withstanding Middle Eastern conditions and UV exposure allowing sympathetic movement with the host structure
- Most epoxies are prone to age hardening, but Polyurethane and Polyshulpides products have lifelong flexibility



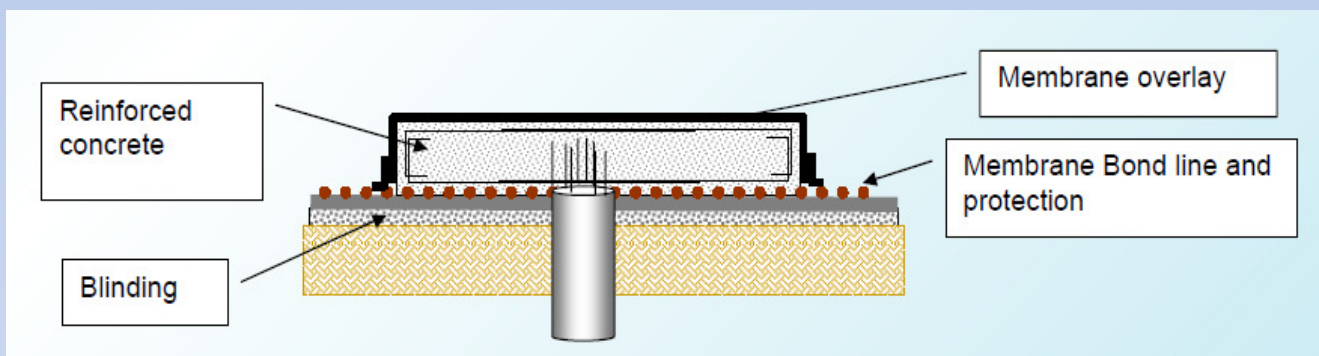
Waterproofing

For water exclusion subsurface or roof waterproofing, tanking and lining the Saudi Arabian manufactured Polyurethane/ Polyurea/ Polysulphides products provide a complete range of encapsulation service as a structural envelope.

- ❖ Rezcoat is the original two part manufacturer of Polyurethane and Polyurea products in Saudi Arabia, providing the Middle East
- ❖ As raw materials are supplied locally, production and availability is cost effective
- ❖ Client confidence is assured thorough product performance and toughness for structural life extension

Foundation and Pile Cap Waterproofing

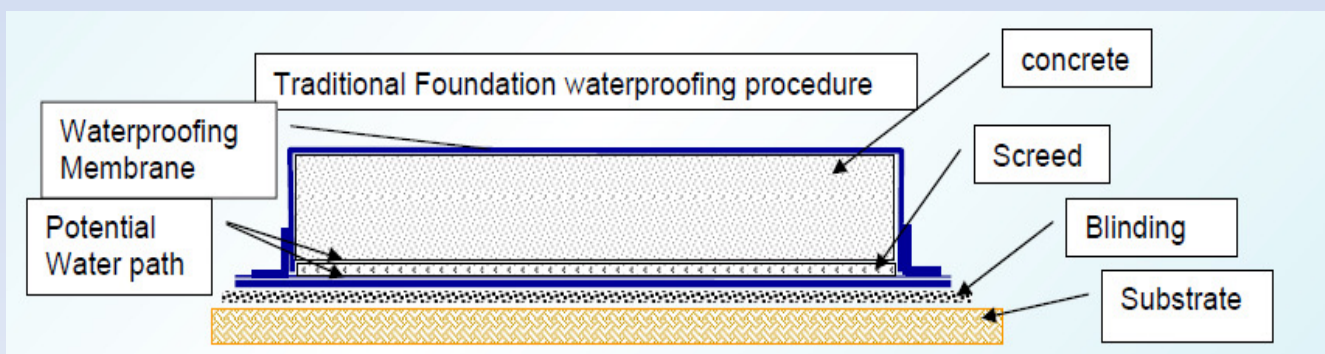
Rezcoat systems bond to the structure providing positive bonding to the underside of the foundations on their bearing surfaces doing away with weak membranes and screeds with their inherent failure planes. This eliminates migration paths under the structural concrete at blinding level. Our solution is tough, strong and affords safe placing of reinforcing without the fear of damaging the waterproofing.



Rezcoat Monolithic Inverted Bond

In this case, coating is homogenous with the structure being physically bonded to the bearing surface of the foundation

The aggregates layer is tightly packed and serves to protect the linings from aggressive handling as well as rubber tired vehicles and construction traffic prior to the concrete pavement.



RezCoat Waterproofing and Linings Projects



RezCoat Waterproofing and Linings Projects



RezCoat Waterproofing and Lining System Products :

Souplethane 5

- High performance solvent free, two component Polyurea hybrid protective lining

Souplethane 5 Core

- Hybrid solvent free, two component Polyurea waterproofing coating

Souplethane 6

- High performance solvent free, spray applied and quick curing two component Polyurea

Resicoat PU

- A highly cross linked solvent free Polyurethane protective coatings

Resiroof PU

- Roof Polyurethane which forms a tough and flexible waterproofing membrane for steel and concrete roofing structures

Resiproof UG

- Subsurface Polyurethane tanking membrane resistant to Spha

Resicoat EPS

- High performance chemical resistant epoxy coating used to protect structures from splash and spill conditions normally experienced in chemical, production plants and laboratories.

Resicoat EPS-6

- Two pack high build epoxy buildcoat/finish

Resicoat EPS-7

- High solid two pack epoxy pigmented with micaceous iron oxide

Resicoat EPS-9

- Two pack high build epoxy buildcoat/ finish

Resicolor UV-1 and UV-2

- High performance fast drying acrylic urethane gloss finish

Resishield UV-30

- Two component aliphatic polyurethane coating

RezCoat Waterproofing and Lining System Products :

Resiprime Primer C111

- Single component moisture cure polyurethane concrete primer

Resiprime Primer P111/P112

- Single component moisture cure polyurethane steel primer

Rezkem Primer EPS 4

- Quick curing high build two pack epoxy zinc phosphate primer/buildcoat

Rezkem Primer EPS 8

- Two pack zinc phosphate primer

Resiputty 050EP

- Non – slump epoxy putty

Permare EP

- A highly chemical resistant epoxy coating for industrial and chemical coatings.

Permare EPW

- An epoxy Polysulphides WRC certified for potable water applications

RezCoat products are manufactured in Saudi Arabia with accordance to ISO 9001: 2008 standards.

Manufactured from Bayer raw materials using their unique and high performance design technology.

These materials are solely manufactured in our ISO 9001: 2008 accredited plant which produces products conforming to these standards and specification.

Approach

RezCoat
Rezayat Protection Coatings Company Ltd.
www.rezcoat.com

Sole manufacturer of two part Polyurethane and Polyurea systems in Saudi Arabia, distributing internationally from Dammam, Saudi Arabia

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Flooring System



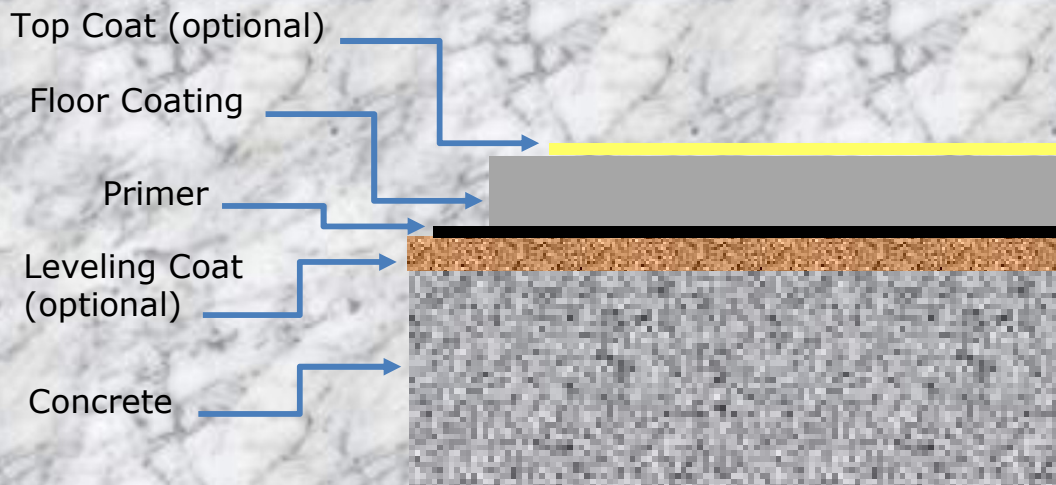
Polyurethane Flooring for:

- ❖ **Parking Decks and Ramps**
- ❖ **Hygienic Food Flooring**
- ❖ **Industrial Warehouse Flooring**
- ❖ **Chemically Exposed Flooring**

RezCoat Polyurethane Flooring System

Wearing surface life extension is assured through system configuration and inherent cohesive strength floor surfaces which outlast most epoxies.

- ❖ Cost effective material
- ❖ Financial reward through low maintenance cost
- ❖ Fit for purpose Polyurethane surface protection
- ❖ Polyurethane (PU) systems meets challenges of exposure



Typical Floor Lining System
(Not To Scale)

PU flooring products are mostly applied as a system, engineered to meet performance conditions ensuring inherent strength through variations in resin and hard aggregates layered during application capable of attaining desired life expectancy

Applications should meet:

- ❖ Conditions of exposure (form of attack, chemical or physical)
- ❖ Wear resistance
- ❖ Traction required
- ❖ Aesthetics and lighting enhancement
- ❖ Performance and exposure environments

Conditions of Exposure

The performance expectations are identified and designed into the applied systems to achieve the demanded life expectancy.

- ❖ Systems exposed to ultraviolet (UV) radiation
- ❖ Systems exposed to chemicals, oil and grease
- ❖ Systems subjected to wear
- ❖ Systems for food and beverage health criteria

As most aromatic Polyurethanes develop a yellow tint when exposed to UV (the surface element of the hardener darkens causing color change), it is important to use a UV tolerant (Aliphatic) top layer when aesthetics are important

Service Life – dependent on the products exposure condition

Cost advantages using Polyurethanes are a function if the performance needs and exposure conditions over their planned expectancy



Wear Resistance

Protection for the substrates from:

- ❖ Vehicular movement in terms of load and frictional resistance
- ❖ Overcoming extended chemical contamination
- ❖ Thermal resistance and ensuring structural envelope

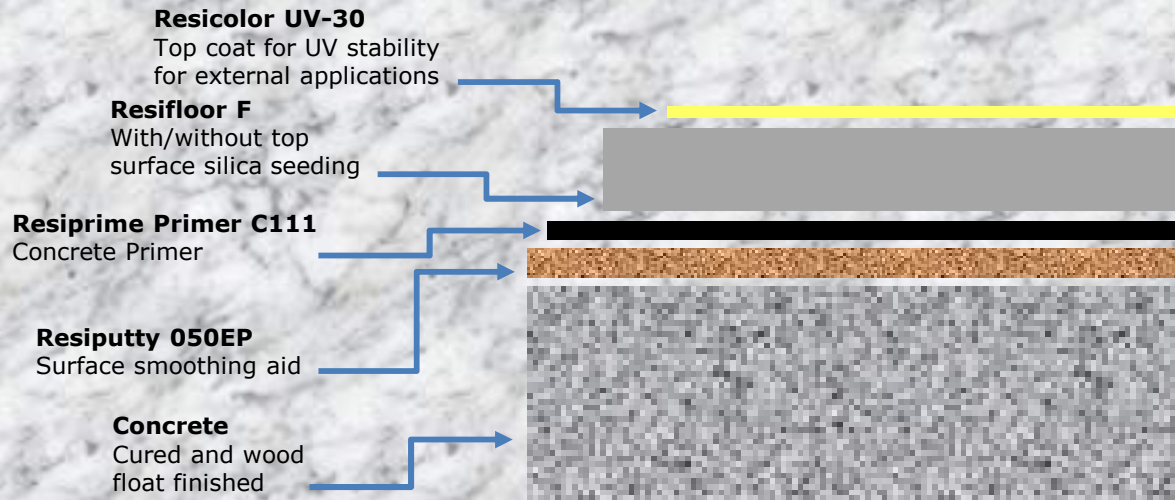


Finish (Aesthetic)

Refers to:

- ❖ Colors, markings and designs
- ❖ Smoothness (matt or gloss)
- ❖ Texture (heavy, medium or light)

The life expectancy is a function of filler and resin content providing a thickness (build) equal to the exposure performance requirement



Simplified Polyurethane Trafficable System
(Not To Scale)

Ramp surfacing textured for high abrasion and dynamic loading.

A heavy duty flooring system formed in multilayer application built up to appropriate texture, while maintaining flexibility. Generally used for ramps and driveways to resist continuous tire abrasion. Modifiable to be used in workshops and heavy industrial applications.

Resiprime C111 Primer – concrete primer with medium blend Silica

Resifloor F – solvent free Polyurethane medium element floor wearing surface

Resicolor UV-30 – aliphatic Polyurethane coating



Textured flooring for traveling vehicles

A trafficable flooring system which may be used on driveways, in parking decks, and UV exposed areas. The floor will be resilient and absorb dynamic vehicular wear, while the exposed texture will increase tire grip ensuring control in slick oily environments. The topcoat is UV stable but need not to be included ion the system if it is not exposed.



Manufacturing and storage of foods and beverages.

Food and Beverage Industry benefits greatly from the non – taint, risk free application of recognized Polyurethane systems. Industrial food packaging plants, beverage and soft drinks manufacturing facilities as well as supermarkets and storage facilities all benefit from the natural hygienic nature of the Polyurethane we produce.



RezCoat Products for Flooring System:

Resifloor F

- Hybrid high performance solvent free Polyurethane coating membrane intended for parking decks, roof decks and floor wearing surfaces

Resifloor EP

- Solvent free and high abrasion resisting epoxy floor coating

Resifloor EPS

- Solvented high abrasion resisting epoxy floor coating

Resishield UV-30

- High performance two component aliphatic Polyurethane coating

Resicolor UV-1

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Resicolor UV-2

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Rezkem Primer EP

- Non toxic, solvent free epoxy primer

Rezkem Primer EPS

- Solvent based epoxy primer

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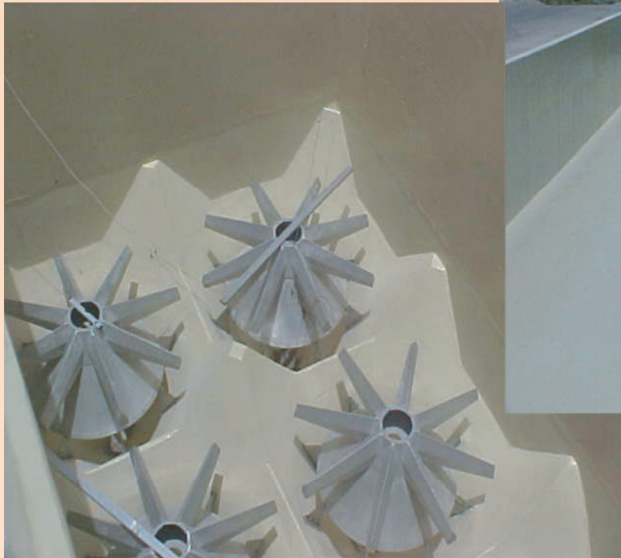
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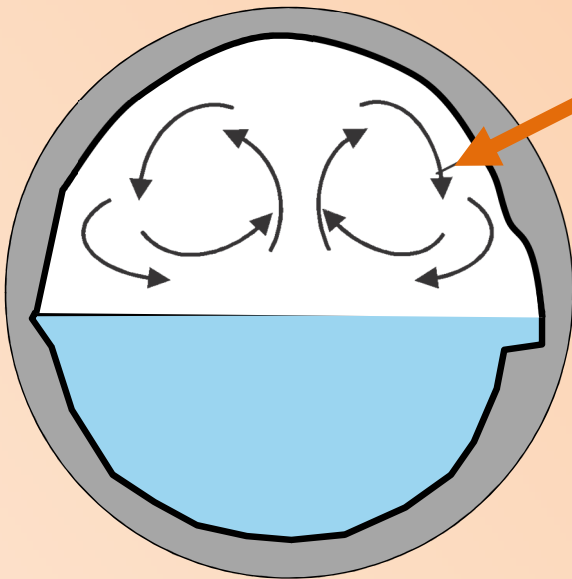
Sewerage and Acid Protection System



Sewerage Structures linings must resist:

- Gas impermeability against Hydrogen sulphides
- Sulphuric acid attack from acid producing amoeba
- Extended exposure to oxygen starved structures
- Abrasion Resistance

Anaerobic conditions generated in the presence of oxygen (in moist zones) causing acid attacks



Requirements for Sewerage Plant Lining:

- Sulphuric acid resistance (20%)
- High impermeability
- Increased film thickness
- Sound history
- Optimum adhesion

- Sewage constrains bacteria, sulfate and organic matter so it has the elements required for sulfide generation
- Bacteria then oxidize the sulphides in the presence of moisture forming Hydrogen
- H_2S that escapes as gas from solution in the sewer maybe oxidized in exposed surface but in moist environments, Hydrogen Sulphides formed in the sewer are reduced to Sulphuric acid by sulphide oxidizing bacteria called Thiobacillus Concretivorus
- The acid causes corrosive damages to vulnerable materials

Sewerage and Acid Protection System Applications



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