THE SOLUTION

FLEXCOAT

WATERPROOFING PRODUCTS

POLYUREA

COATING SYSTEMS

Seamless Waterproofing Membrane

ULTRA FAST CURE • HIGH PERFORMANCE • SUPER STRENGTH

POLYUREA COATING SYSTEM

What have been said about Polyurea ...

** the next step in coatings evolution*
** a wonder product*
** the new gold standard in waterproofing*
** the ultimate coating solution*
** greatest invention (non medical) in the last few generations*

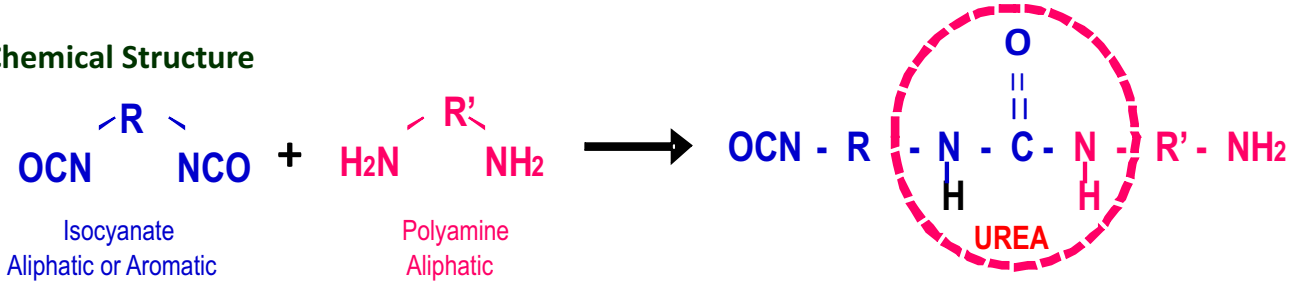
The Polyurea Development Association (PDA), the polyurea industry's (in the U.S.A.) trade association has developed a "formal definition" to help suppliers, engineers, specifiers and contractors differentiate between real polyureas and other materials that "claim" to be polyureas.

Definition

A polyurea coating / elastomer is that derived from the reaction product of an isocyanate component and a resin blend component. The isocyanate can be aromatic or aliphatic in nature. It can be monomer, polymer, or any variant reaction of isocyanates, quasi-prepolymer or a prepolymer. The prepolymer, or quasi-prepolymer, can be made of an amine-terminated polymer resin, or a hydroxyl-terminated polymer resin.

The resin blend must be made up of amine-terminated polymer resins, and/or amine-terminated chain extenders. The amine-terminated polymer resins will not have any intentional hydroxyl moieties. Any hydroxyls are the result of incomplete conversion to the amine-terminated polymer resins. The resin blend may also contain additives, or non-primary components. These additives may contain hydroxyls, such as pre-dispersed pigments in a polyol carrier. Normally, the resin blend will not contain a catalyst(s).

Chemical Structure



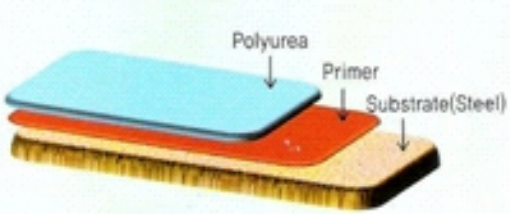
FAST SET (5-15 sec) * TOUGH * SEAMLESS * WATERPROOF * ROOTPROOF

Advantages

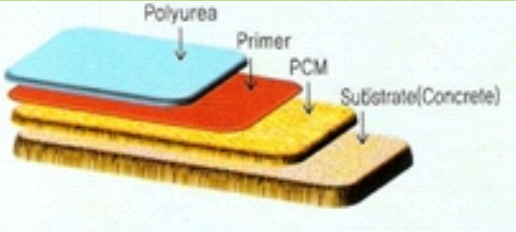
Ultra Fast Set (5-15 seconds), fully cures in a few hours
Short down time, facility can be returned to service in 24 hrs
Can be applied on vertical or inclined surfaces without sagging
100% solids, zero to low VOC, non-toxic
Weather Tolerant: cures at -25ºF to >300ºF
Moisture Insensitive, Application Unaffected by High Humidity
Excellent Physical Properties Including tensile strength, tea strength, and elongation.
High Abrasion Resistance
Seamless and Resilient
Excellent Adhesion to Properly Prepared Substrates
Excellent Resistance to Thermal Shock
Waterproof, Root-proof
Resistant to Solvents, Caustics and Mild Acids
Heat and Fire Resistance
Unlimited Mil Thickness in One Application
Pigment compatible. Colorants can be added to change appearance and light-stability.

Methodology

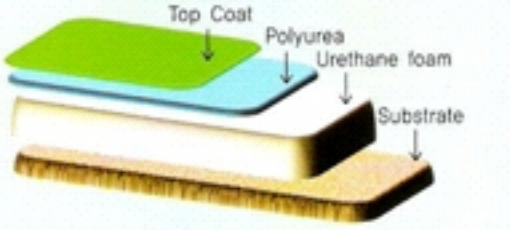
Steel Anti-Corrosive Coating



Concrete Structure Waterproof



Outside Insulation Protection



Applications

Waterproofing
Roofing, Leak Protection
Roof Coating
Flat Roof Repair
Corrosion Protection
Swimming Pools
Warehouse & Industrial flooring
Pipelines & fitting coatings
Shipping containers & rail car lining
Tank coatings
Truck Bed Linings
Flooring and Parking Decks
Waste Water Treatment Linings
Manhole & Sewer Linings
Theme Park & Decorative Design
Landscape & Water Containment
Automotive Fascia OEM Molded Parts
Railcar Lining & Track Containment

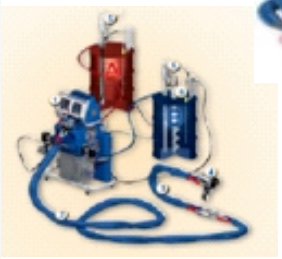
EXCELLENT ADHESION * NON-TOXIC * RESISTANT TO SOLVENTS & ABRASION

Flexcoat Polyurea Spray Equipment

GRACO REACTOR E-XP2 PLURAL COMPONENT PROPORTIONER

High Pressure, Plural Component System

Transfer Pumps



Reactor hose

Fusion Gun

Product Name	ROM -PU300	ROM -PU600	ROM -PH30
Type	Pure Polyurea	High Elongation	Hybrid Polyurea
Usage	Waterproof, anti-corrosive coating, lining		
Tack free time	~ 1 min	~ 2 min.	~ 1 min.
Tensile Strength (N/cm²)	> 1,500	> 1,200	> 1,000
Elongation (%)	300 - 100	600 - 100	200 - 100
Hardness (Shore)	A90 - 5	A80 - 5	A85 - 10

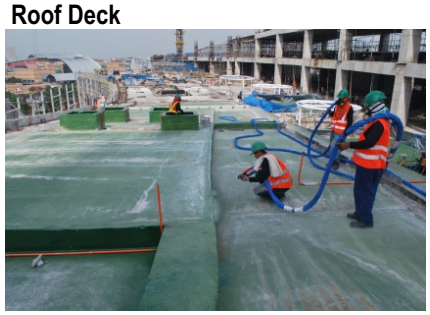
Tanks Anti -Corrosive Coating

Canopy

Roof Garden

Swimming Pool Waterproofing

Roof Deck



Floor Coating

Sprayed PU Foam Top Coat

Gutter

Fountain Area

THE SOLUTION

FLEXCOAT

WATERPROOFING PRODUCTS

POLYURETHANE SYSTEM

LIQUID-APPLIED POLYURETHANE WATERPROOFING SYSTEM

POLYURETHANE WATERPROOFING SYSTEM

Polyurethane waterproofing system is a group of coatings based on Polyurethane resins, which used in combination, creates a seamless membrane on any surfaces, that protects the building structure reliably and on a long term basis, even under the most difficult conditions. Classified as single component and two-component waterproofing membrane.

ROMTECH POLYURETHANE COATING

(Single Component Pure Polyurethane Elastomeric Waterproofing)

➡ is an excellent performance , ease for expose and non -exposed application. Highly flexible, cold applied Ultra Violet resistant coloured membrane. High solid content of more than 93% pure polyurethane produce an excellent quality and performance to meet all waterproofing application on concrete structures.

USES:

- Reinforced Concrete roofs
- Waterproofing for terraces,
- Planter boxes
- Balconies
- Kitchen and toilet
- External tanking of basement
- Swimming pool
- Retaining walls.
- Below grade floors and wall slabs

THE PROFESSIONAL, LONG LASTING WATERPROOFING SOLUTION

RPC-12 is coloured expose moisture cured pure polyurethane elastomeric waterproofing membrane. Highly flexible, cold applied Ultra Violet resistant coloured waterproofing membrane for External Wall Roof application.

RPC-11 is an excellent performance single component elastomeric pureR Black colour Polyurethane waterproofing membrane without modification of bitumen or coal tar.

CHARACTERISTICS :

- Easy to work on a complex form of structure or on a vertical surface. Possible to form seamless waterproof layer.
- Excellent adhesion strength to any substrates. Excellent bridging effect performs highly on cracks due to good elongation.
- Easy to adjust a color tone and its beautiful elastic surface can be applied in various purposes
- Excellent soundproof & protection against dusts. Very slight load on building structure
- Possible in expose waterproofing and excellent in durability, water resistance and chemical resistance.
- Seamless type of good durability and beautiful appearance.
- Pleasant feeling of walking due to noise and shock absorption.
- Excellent performance in durability, chemical resistance and impact resistance. When it is damaged, partial repair is possible easily.


ROOF DECK AREA


MECHANICAL DECK AREA

POLYURETHANE WATERPROOFING COATINGS

PROPERTIES	RPC -11	RPC - 12
	Non – Expose type	Expose type
Density	1.2-1.3 g/cc	1.2-1.3 g/cc
Solid Content	> 95%	> 95%
Tensile Strength	2.1 N/mm^2	3.8 N/mm^2
Tensile Product	304.1 N/mm	439.7 N/mm
Tear Strength	13.4 N/mm	22.6 N/mm
Elongation at break	700 %	580 %
Adhesion to concrete	> 1.5 N/mm^2	> 1.5 N/mm^2
Hardness (Shore A)	40	60
Touch dry (at 25C at 65% R.H)	2-3 hours	2-3 hours
Cure time	12-24 hours	12-24 hours
VOC Content	29.22 g/L	47.63 g/L

THE SOLUTION

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WATERPROOFING PRODUCTS

STRUCTURAL STRENGTHENING

CARBON FIBER

RCF13 - 300

RCF13 - 600

GLASS FIBER

RGF13 - 300

RGF13 - 600

CARBOPLATE

RCP13 - 1.2

RCP13 - 1.4

CARBON FIBER REINFORCED POLYMER

CARBON FIBER REINFORCED POLYMER

What is **Carbon Fiber Reinforced Polymer**?

The basic constituents of **CFRP** are **fibers** such as **carbon**, **aramid** and or **glass** and a **resin matrix**.
The fibers come in the form of a **flexible fabric** that is **saturated** in the field and is **bonded** to substrate, using a specially formulated structural epoxy.
Carbon Fiber is an **exceptionally strong** and **versatile material**, with special characteristics that make it the solution of choice in a growing range of applications, from underground pipe repair to historic preservation.
Carbon Fiber's anisotropic properties, different when measured along different axes, allow for exactly the required strength in each direction. This makes Carbon Fiber particularly effective for seismic conditions.

Characteristic of **Carbon Fiber**

CFRP's - are very flexible prior to curing, they can be easily applied to surfaces of varying shapes.

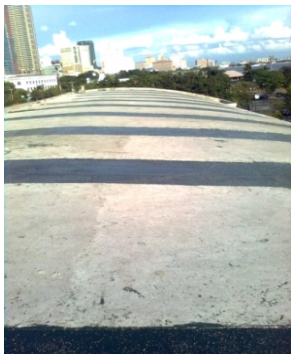
CFRP's - are light enough to be handled without lifting equipment on the job site, enough to be applied to low access spaces without interrupting operations

---adding as little as .5mm - 1.0mm thickness to surfaces depending on layers required

The minimal change to mass of structure also eliminates the need to make foundation adjustment or other costly construction, reducing overall project costs

Advantages of **Carbon Fiber**

- **Non-intrusive**
- **Quick and easy to apply even in tight spaces**
- **Flexible and versatile, adapting to any structural shape**
- **Lightweight**
- **High tensile strength and excellent fatigue behavior**
- **Non-toxic**
- **Odorless**
- **Leak-proof**
- **Six to ten times stronger than steel**
- **Corrosion-resistant**
- **Thermally compatible with common construction**



LUNETA GRANDSTAND

Application of Carbon Fiber on the roofing to supplement the R270 in the under slabs for a stronger structure.

Uses of **Carbon Fiber**

- **Increase shear strength**
- **Increase flexural strength for both positive and negative moments**
- **Increase stiffness at service loads**
- **Reduce cracked widths for enhanced durability and corrosion resistance**
- **Provide containment**
- **Prevent leaks**
- **Enhance ductility**

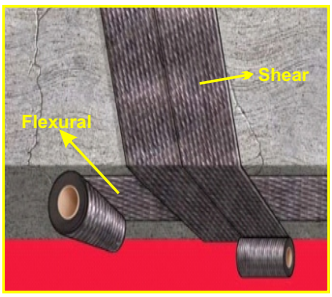
ENTRATA URBAN COMPLEX

Application of Carbon Fiber on the slab, the beam and wrapped around the base of the column.

Application of Carbon Fiber on the beams in the basement parking area directly below the ramp/driveway to increase flexural and shear capacity.

STRUCTURAL STRENGTHENING

BEAMS - CONCRETE



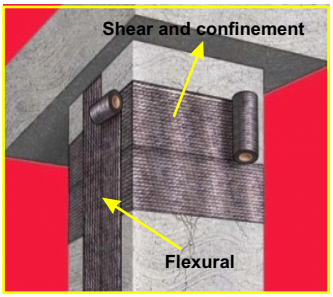
Carbon Fiber can increase flexural and shear strength of concrete beams...

- For flexural strenghthening...
  Carbon Fiber is bonded to the tension face
- For shear strenghthening...
  Carbon Fiber is bonded to the web of the beam

ADVANTAGES

-Restores full capacity of cracked girders
-Increases flexural capacity
-Increases fatigue life
-Eliminates stress concentration and residual stresses due to welding
-Increases stiffness
-Costs less than alternatives

COLUMNS - CONCRETE



Carbon Fiber is used to increase ductility and strength of concrete columns.

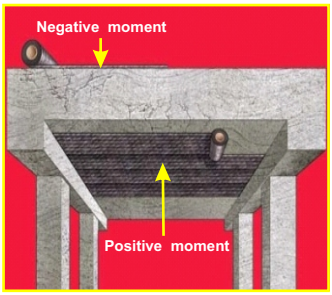
Due to beneficial effects of confinement, the column ductility is significantly increased.

In addition, CFRP helps to make up for inadequate amount or improperly detailed lateral ties and increases the shear strength of the columns significantly.

ADVANTAGES

-Increases ductility
-Increases shear strength
-Increases axial load carrying capacity
-Light weight and easy to install
-Can be wrapped along columns with varying cross section
-Costs less than alternatives such as steel jacketing

CONCRETE SLABS

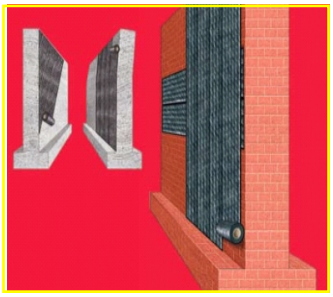


Carbon Fiber is bonded to the bottom of slabs (positive moment regions) ...or to the top of the slab (negative moment regions) to increase flexural capacity

ADVANTAGES

-Increases flexural strength
-Reduces deflections
-Lightweight and easy to apply
-Protects slab from further environmental damage
-Costs less than alternatives

BRICK WALLS



Strengthening of Masonry and Brick Walls

Carbon Fiber significantly increases the in-plane and out-of-plane strengths of unreinforced masonry and brick buildings.

- It is very lightweight and is applied to this type of structure in a manner similar to wallpapering, but at the same time it provides significant strength as if *shotcrete* had been applied to the structure.

We have the solutions for all structural repair, retrofit and rehabilitation works...

We provide innovative and effective structural repair services that...

- ***Cost only a fraction than the traditional methods***
- ***Require a lot less installation time***
- ***Cause the least intrusion and interruption as possible***

THE SOLUTION

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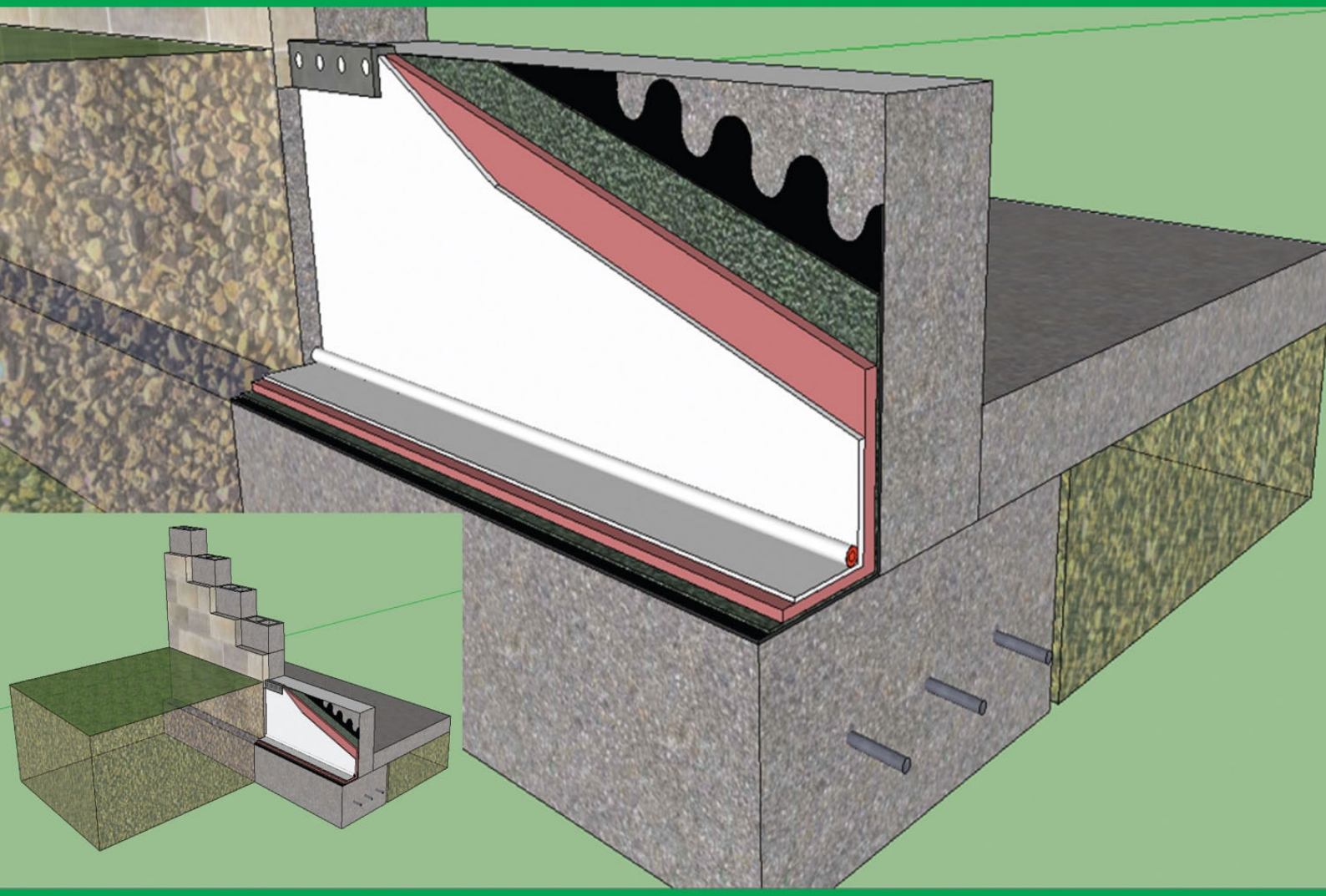
WATERPROOFING PRODUCTS

WATERPROOFING PRODUCTS



WATERPROOFING FOR WALLS

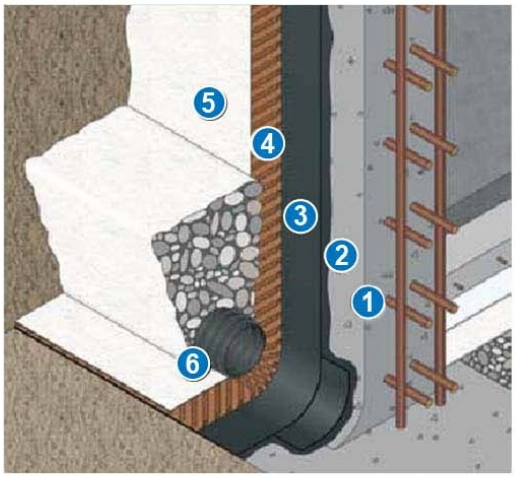
WATERPROOFING & PROTECTION ON WALLS SYSTEM

ROMTECH solutions for waterproofing, protection and drainage of underground walls of residential buildings and of civil works.

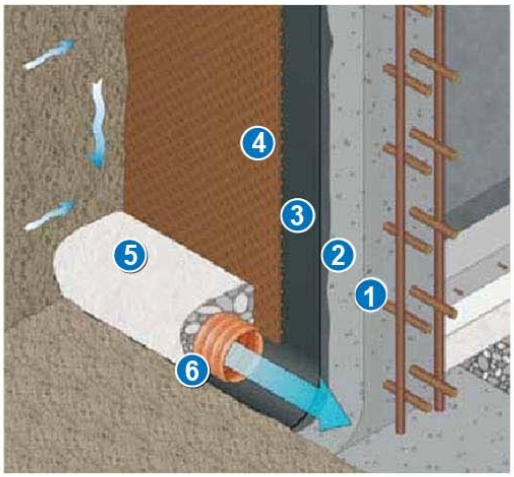
ADVANTAGES

• It gives a continuous drainage, avoiding the appearance of hydrostatic pressure against the walls and avoiding a direct contact between moisture and the wall.
• The waterproofing is provided by bituminous membranes torched on or self adhesive against a previously primed support.
• Long lasting durability of the building / structure against moisture and external aggressions.

SOLUTIONS



1. Wall (Concrete)
2. Primer
3. Waterproofing
4. Drain and protection
5. Filter cloth/Geo textiles
6. Drainage pipe or perforated pipe



1. Wall (Concrete)
2. Primer
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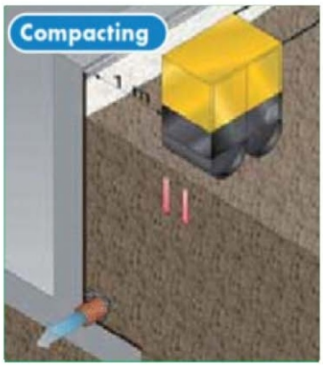
WATERPROOFING MATERIAL

Flex Indextene - Self Adhesive membrane for walls
Flextorch NOVA P – Torch on mineral membrane for walls
ROM-PH30 Polyurea – Fast set Sprayed Elastomer
**refer individual brochure for technical specification

DRAINAGE AND PROTECTION

PRODUCT NAME		DESCRIPTION
CE	DANODREN H15 PLUS	High-density polyethylene (HDPE) nodular sheet for walls and floor's drainage, and waterproofing mechanical protection.
CE	DANODREN H25 PLUS	
CE	DANODREN H15	High-density polyethylene (HDPE) nodular sheet for waterproofing mechanical protection.
CE	DANODREN H25	

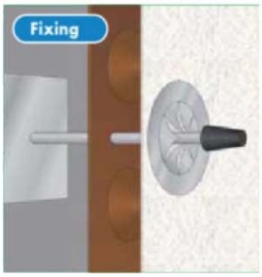
WATERPROOFING & PROTECTION ON WALLS SYSTEM

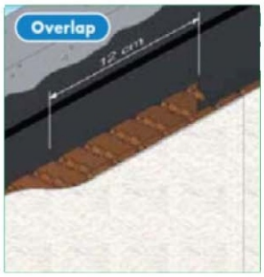


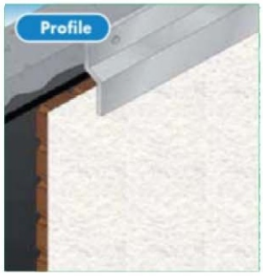
1 **Surface Preparation** – the surface of the wall must be resistant enough, even, plain, clean and dry. Singular points must also be prepared before the installation of the membrane. Previous to the waterproofing of the wall a bituminous primer must be applied. Applying surface must be plain, dry and clean out of dust and grease.

2 **Waterproofing installation** – membrane is applied on vertical position.
(refer individual brochure for waterproofing detail.)

3 **PROTECTION and DRAINAGE** – DAN O DREN H PLUS rolls must be applied with the geotextil against. The ground, setting the fixing every 50 c max . Overlaps 10-12 cm. Adhesive fixings can be also be used. In order to ensure the drainaging membrane, the metalic profile must be mechanically fixed to the wall.







	DAN o DREN H15 Plus	DAN o DREN H15	DAN o FELT PY 500	DAN o FELT PY 300
Length	20m	20m	70 m	100 m
Width	2.1m	2.1m	2.2m / 4.4 m	2.2m / 4.4 m
Roll Surface	42m^2	42m^2	154 m^2 / 308m^2	154 m^2 / 308m^2
Technical Data				
Compressive resistance	180±20%kN/m^2	180±20%kN/m^2		
Tensile Strength, approx	>450 N/60mm	>450 N/60mm		
Tear Strength, approx	>25%	>25%		
Modules of elasticity	1500N/mm^2	1500N/mm^2		
Drainage capacity	5 l/s.m	5 l/s.m		
Puncture Resistance	2.5, -0.5kN			
Tensile strength	15.0, -2.0kN/m			
Elongation at break	100±20%			
Water permeability	0.0614, -0.00921 m/s			

*** *refer to individual brochure for complete technical data*

THE SOLUTION

FLEXCOAT

WATERPROOFING PRODUCTS

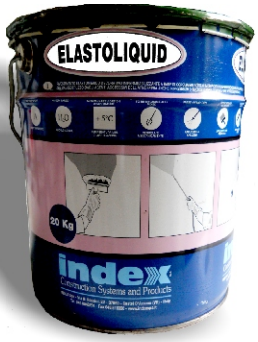
ANACRYL

ELASTOLIQUID

FLEXIBLE ACRYLIC WATERPROOFING SYSTEM

DESCRIPTION

ANACRYL - is a single component flexible acrylic waterproofing membrane that cures into tough elastic film that can withstand severe expansion and contraction movements and protect the external surface from water seepage and detorioration due to carbonation, acid or chemical attack or types of environmental pollution.



ADVANTAGES

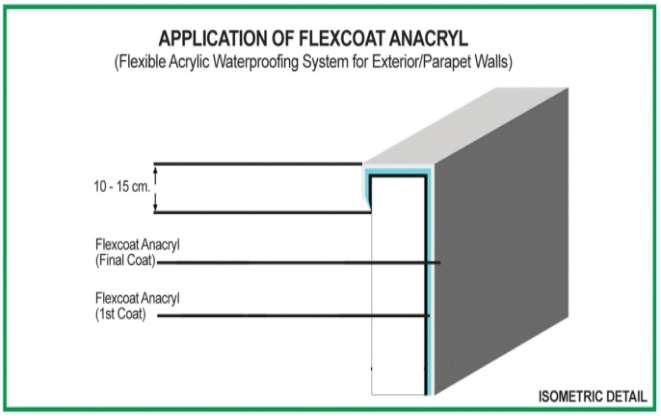
- ❑ can bridge cracks
- ❑ Has variety of colors.
- ❑ low dirt pick up
- ❑ maintain flexibility
- ❑ Easy to apply
- ❑ seamless no joints
- ❑ does not require protective screed
- ❑ is an environmental friendly
- ❑ can resist mould and fungus

USES

- ✓Old and New Roofs
- ✓Refurbishment of old Roofs
- ✓Old Roof Tiles
- ✓Facades
- ✓For Internal and External Use
- ✓Concrete roofs and gutters
- ✓Timber surface
- ✓Metal roof and Asbestos Roof

SUBSTRATE PREPARATION

1. Concrete surfaces to be waterproofed must be free from any protrusions or substances that may damage the waterproofing. Ensure all surface are free from dirt, oil, gas, curing compounds and other loose contaminants materials.
2. Fill all voids, cracks, edges and angles with Epoxy grout or cement screed, suitable repair material, so that prepared surface sound, even and clean by the general contractor.



METHODOLOGY

ANACRYL COATING APPLICATION

- ANACRYL must be carefully mixed in its container before use. The product can be applied by brush, roller, broom or spray.
- Surfaces to be painted must have sufficient falls to allow the complete drainage of rainwater which would otherwise cause ponding, softening the film coating, seriously affecting its adhesion to the support.
- To achieve good protective results it is necessary to apply two coats of Anacryl coating; the second coat should be applied at least 24 hours after the first coat has completely dried.
- On surfaces subject to micro-cracking Anacryl coating can be reinforced by inserting the “non-woven” polyester fabric reinforcement between layers of the paint.

TECHNICAL DATA

	RESULTS	TEST STANDARDS
THICKNESS OF MEMBRANE		
For Roofdeck 5 layered system	1.5mm	
For wall 2 coats	1.2mm	
Viscosity	>16,000 cps	
Flash point	-	
Solid Content	>60% by weight	
	>48% by volume	
Elongation at Break	246%	ASTM D412:92
Tensile Strength	2.3N/mm2	ASTM D412:92
Adhesion Strength	>0.5N/mm2	ASTM D4541:9
Hardness Shore A	70	ASTM D2240:91
Crack Bridging	More than 2mm	ASTM C836:89
Crack Bridging (after 10 cycles	Passed	ASTM C836:89
Of weathering closing to a width of 1mm		
Water vapor transmission	34.28 g/m2/24hr	ASTM E96:94
QUV Accelerated	No cracking	ASTM G53:93
Weathering (1000 hours)	Grey Scale No 5	
Drying Time	12 hours	
Application Temperature	5 C to 40 C	
Fire Resistance		
-Spread of flame index	Zero	AS 1530 Part 3
-Smoke evolved index	4	

THE SOLUTION

FLEXCOAT

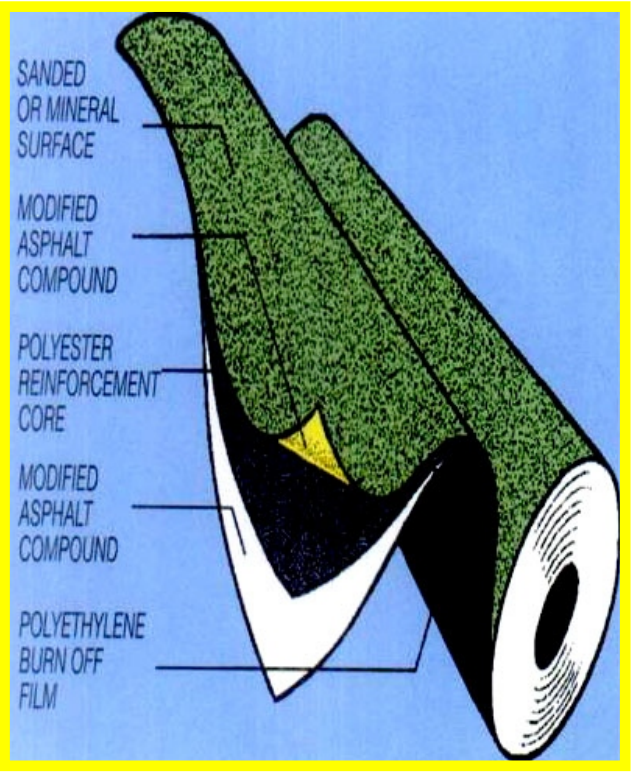
WATERPROOFING PRODUCTS

FLEXTORCH
MINERAL

WATERPROOFING MEMBRANE

FLEXTORCH POLYESTER REINFORCED WATERPROOFING MEMBRANE

A prefabricated roofing membrane manufactured under the most stringent quality control specifications for protection, repair & restoration of all types of roofs, gutters and structures.



Sanded or Mineral Surface- **The top layer which is treated with fine sand for the sanded – finish.**

Modified Asphalt – the asphalt is mixed with highly compatible modifiers to provide the membrane with better aging characteristic, and higher resistance to cold and hot temperatures.

Polyester Core- is reinforced with non woven polyester mat which stretches up to 30% allows the membrane to accommodate thermal shocks and excessive roof movements.

Burn off film- is factory applied during production. This film acts as a heat gauging device.

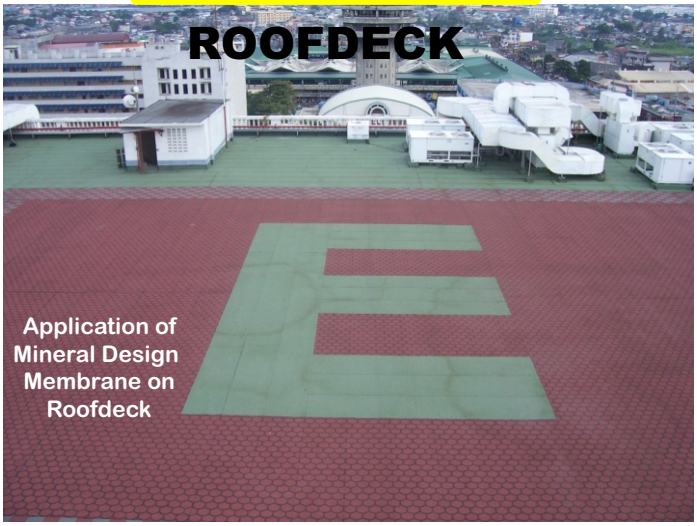
ADVANTAGES

- ❑ Eliminates needs for coating or Covering the top surface.
- ❑ No height restriction on application.
- ❑ No kettle or hot asphalt required.
- ❑ Only one layer is required.
- ❑ Quick and easy to install.
- ❑ Easy to repair.

MINERAL DESIGN
WATERPROOFING MEMBRANE

The new generation Membrane which is self-protected with a mineral finish. The Mineral finish is no longer in just one color but it is now supplied in various colors in accordance with exclusive designs.

PASIG CITY HALL



Application of Mineral Design Membrane on Roofdeck

TYPICAL USE

- ❑ Re-roof and New Roof
- ❑ Foundation Waterproofing
- ❑ Dome shaped Roofs
- ❑ Bridges and Viaducts
- ❑ Under floor waterproofing
- ❑ Rooftop Gardens
- ❑ Patio Deck

TECHNICAL DATA

REINFORCEMENT

(Nonwoven Polyester)	180gm/m²	Standard
Softening point	143° C	ASTM D 36-76
Heat Stability	120° C	UNI 8202 /18
Cold flexibility	-5° C	UNI 8202 /15
Water Absorption	>1%	ASTM D 570:88
Water Vapour Transmission	13.30 g/m²	ASTM E 96 : 94
Tensile Strength	24 hours >5 N/mm²	ASTM D 412 : 92
Elongation at break	<46%	ASTM 412 : 92
Tear Resistance	140 N	ASTM D 36 - 76
Sanded Surface (Thickness)	3mm , 4mm	
Mineral surface (Weight)	4.5 kg./ m²	
Roll size	1 m x 10 m	
Colors Available	Green , Grey, Red , Black	

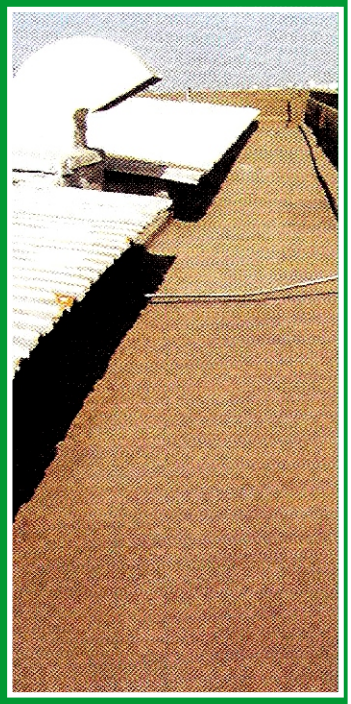
THE SOLUTION

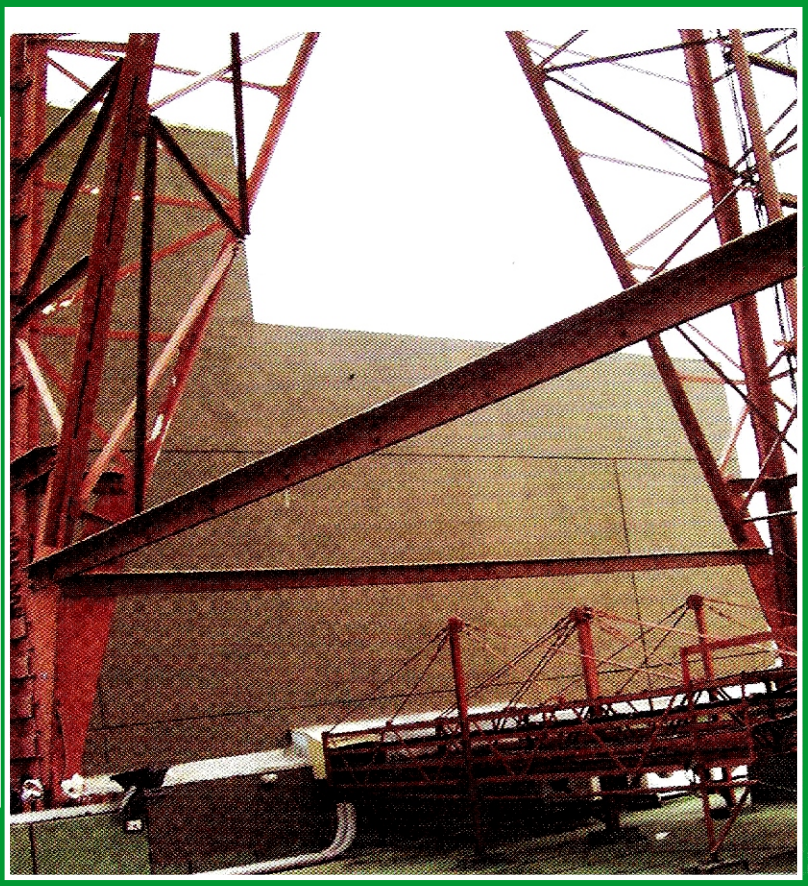
FLEXCOAT

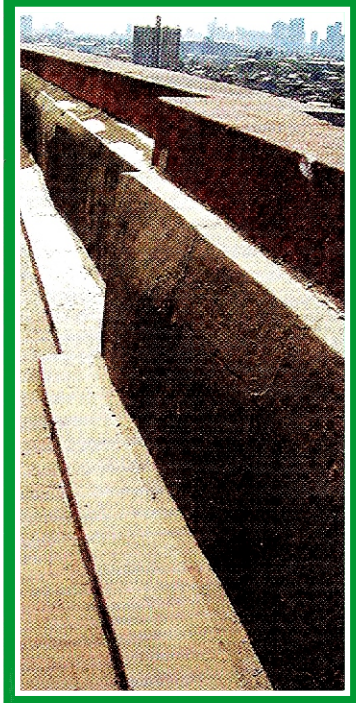
WATERPROOFING PRODUCTS

R-23 FLEX

Osmolastic AB







A Flexible 2-Part Cementitious Waterproofing System

FLEXCOAT R-23 is a flexible 2 part acrylic-modified cementitious waterproofing system. The two components of Flexcoat R-23 reacts chemically after mixing to form a hard and elastic film which bonds tenaciously to most concrete or masonry substrates to protect against possible ingress of water.

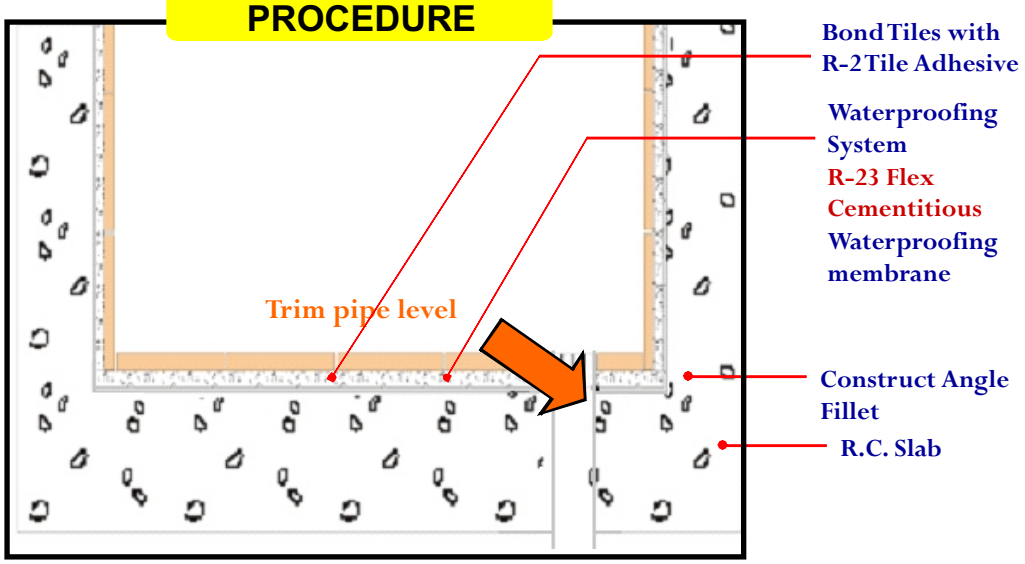
SUITABLE SUBSTRATES

* Concrete
* Brickwork
* Precast Surface
* Lightweight Blocks
* Shotcrete

ADVANTAGES

* 2 Component eliminates risk of Incorrect Mixing Ratio
* Seals Lightweight Aerated Blocks
* Seals Precast Joints
* Anti-Carbonation Protection
* Non- Toxic
* Will not attack metal
* No protection required prior to fixing other types of finishes

APPLICATION PROCEDURE



TYPICAL USES

- Swimming Pools
- Balconies
- Basement Walls
- Potable Water Tanks
- Reservoirs and RC Flat Roof
- Comfort Room and Laundry
- Lift pits

SM FAIRVIEW

GLOBE TELECOM
VITO CRUZ

SM DASMARIÑAS

TECHNICAL DATA

Tensile Strength	-> 1.56 N/mm²	-ASTM D 41 2-92
Elongation at break	-> 172%	-ASTM D 41 2-92
Adhesion to Concrete	-1.18 N/mm²	-ASTM D 4541
Flexibility over 25mm diameter mandrel	- Passed	
Bridge Cracks up to 2mm	- Passed	
Hardness Shore A	-> 83	-ASTM S2240 :91
Improves water resistance of concrete by more than 7 time @ .4kgf/cm²	- Passed	-DIN 1048
Water Vapour Transmission	< 25g/m² 724 hrs	
Chemical Resistance	- Passed	-0.5% NaOCl -1.0% NH_4OH -3.5% HCl
Chloride content	< 0.01%	
Toxicity BS6920	-Passed	
Working Time (30o c)	-approx. 1 hour	
Drying time (30oC) Touch Dry	-1-3 hours	
Foot Trafficable	-4 hours	
Ponding Test	-48 hours	

THE SOLUTION

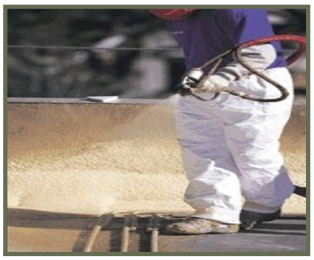
FLEXCOAT

WATERPROOFING PRODUCTS

ROOFSEAL FOAM

SPRAYED POLYURETHANE FOAM

DEFINITION



A versatile energy sufficient material that is used to provide many solutions for the building and construction industry. SPF insulation combines high isolative value with other attributes that contribute to lower energy used and maintenance costs while increasing durability in buildings.

Once the SPF has been applied to the proper thickness and finish specifications, a protective layer of acrylic UV coating is applied. This protective layer produces a durable weather resistant surface and that can be walked on for normal maintenance.

ADVANTAGES

THERMAL INSULATION :

- With highest "R" value of 7.14 per 1-inch thickness
- very high thermal conductivity
- With less material than any other insulation in the market.

"Big Saving on Energy Bills"

WATERTIGHT:

- Billion of minute closed cells
- Resist the penetration of water and vapors
- Can stop even air infiltration

ANTI-CORROSION: Sprayed Polyurethane Foam effectively shuts out oxidation on galvanized steel roofing to prevent corrosion. Coupled with acrylic coating, insulation proofing protects against extremes of heat, ozone and ultraviolet rays.

FLEXIBILITY:

- ability to withstand a structure's normal expansion and contraction.
- keep the structure protected from the outside elements.
- Cuttable and paintable.

ELIMINATES FLASHING LEAKS:

- conforms to the substrate
- flashing parapet walls, roof penetrations and mounted equipment
- vents, pipes, stacks, HVAC equipment, skylights

SEAMLESS

- It has no joints or seam often allow outside water and air to pass through the roofing
- Expands and sealed holes, gaps and crevices.

LIGHTWEIGHT

- 1" thick of foam plus 15 mils of an acrylic coatings weighs approximately 1 pound per 2 square feet
- as compared to approximately 6 pounds per 1 square foot for a typical conventional four ply built-up roofing system.
- ideal for re-roofing to prevent waste disposal without additional structural retrofit
- best solution to apply over an existing roof without removing it.

ECONOMICAL

- eliminating costly and time consuming roof removal
- operational shutdown and damaging weather exposure
- the most economical and practical approach to retrofit old roof
- prolong the integrity of roofing material

"No Need for Underneath Insulation"

ADVANTAGES

EASE OF APPLICATION – NO TEAR-OFF OF OLD ROOF:

- applied in a relatively short period of time
- little or no disruption of building operations

"ZERO DOWNTIME"

LONG LASTING :

- The acrylic UV coating protects the polyurethane foam
- Can be rejuvenated by the re-application of additional coatings
- Can last for more than 20 years

VERSATILITY

- used on both new and replacement roof,
- whether flat, corrugated, rib-type, domed,
- having unusual slopes or configurations.
- It is also ideal for tanks , freezers, coolers, piping, ductwork and various aerospace projects.

EASE OF MAINTENANCE :

- Minor repairs or modifications can be done
- in-house maintenance personnel at minimal cost.
- All that is needed is a hand caulking gun and a tube of caulking.

SOUND REDUCTION

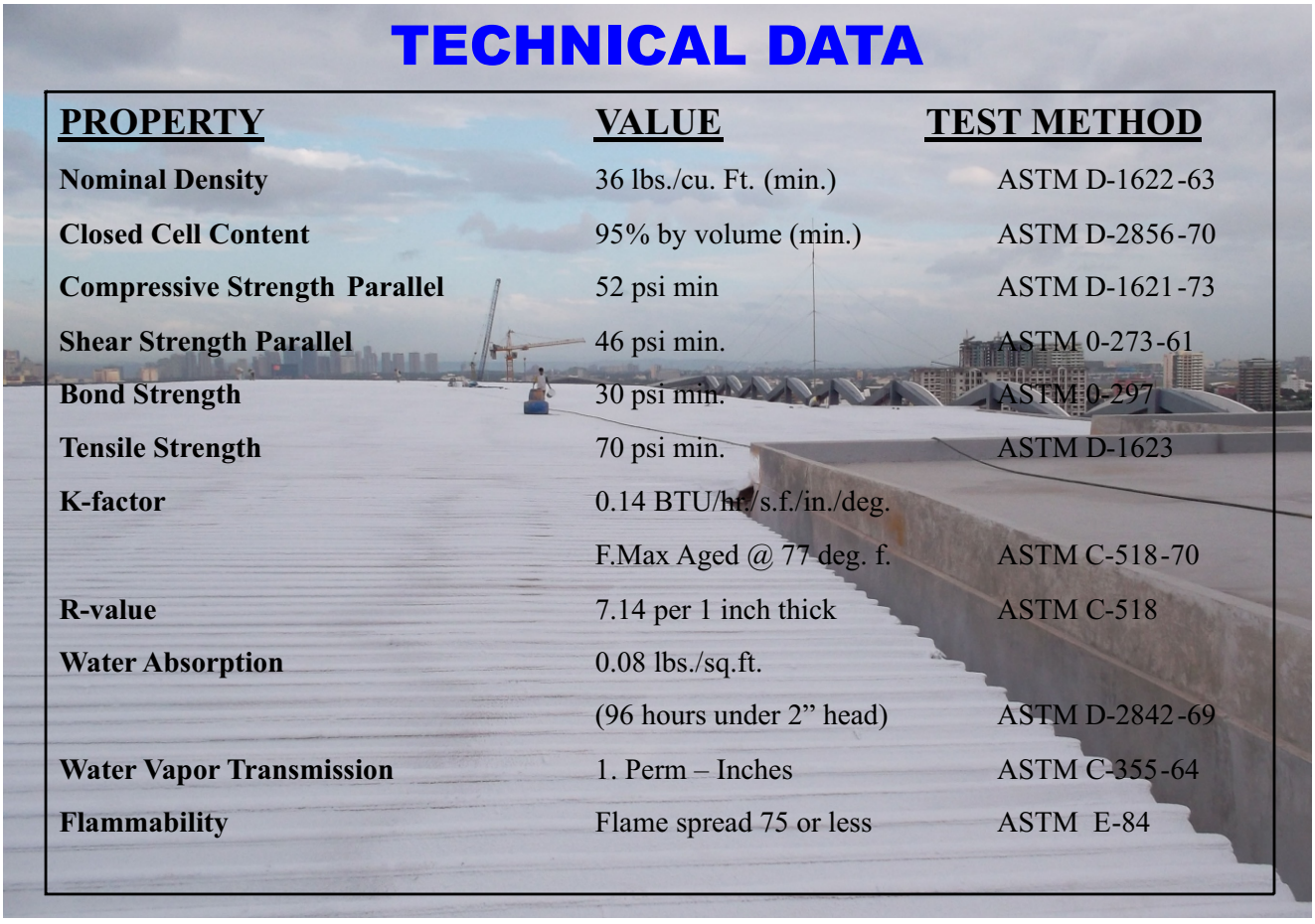
- effective sound deadening medium.
- A substantial degree of sound insulation against rain and other external noises is achieved.
- Better sound (acoustic) quality is produced.

RIGIDITY

- strong and will not pack down or sag.
- It is guaranteed to last as long as the roof substrate exists.

ENVIRONMENT FRIENDLY

- adheres to the Montreal Protocol by using non-ozone depleting agents in its application process.
- Prevent hazardous health affected by mildew and bacteria



TECHNICAL DATA

PROPERTY	VALUE	TEST METHOD
Nominal Density	36 lbs./cu. Ft. (min.)	ASTM D-1622-63
Closed Cell Content	95% by volume (min.)	ASTM D-2856-70
Compressive Strength Parallel	52 psi min	ASTM D-1621-73
Shear Strength Parallel	46 psi min.	ASTM 0-273-61
Bond Strength	30 psi min.	ASTM 0-297
Tensile Strength	70 psi min.	ASTM D-1623
K-factor	0.14 BTU/hr./s.f./in./deg.	
	F.Max Aged @ 77 deg. f.	ASTM C-518-70
R-value	7.14 per 1 inch thick	ASTM C-518
Water Absorption	0.08 lbs./sq.ft.	
	(96 hours under 2" head)	ASTM D-2842-69
Water Vapor Transmission	1. Perm – Inches	ASTM C-355-64
Flammability	Flame spread 75 or less	ASTM E-84

THE SOLUTION

FLEXCOAT

WATERPROOFING PRODUCTS

R-280

EPOXY TANK LINING

SPECIAL COATING FORMULATION

R-280

Description

ROMTECH R-280 Tank Lining Epoxy is a special coating formulation based on liquid epoxy resin and amino-amine curing agents designed for heavy -duty lining of concrete, metal and wooden storage tanks. When fully cured, it develops into a seamless, waterproof, abrasion and chemical resistant coating that is lead-free and non-toxic. Available in a variety of standard colors, it has crack-bridging properties, easy to clean, complies with current health regulation for the use of synthetic resins in areas where food is stored and prepared.

Uses

ROMTECH R-280 Tank Lining Epoxy is recommended for coating of portable water storage tanks (cistern or overhead), swimming pools, prawn and fish hatcheries, concrete roof gutters, and tanks for storage of fuel oils, chemicals (except highly corrosive acids and bases), grains, powders. Reinforced with Flexcoat R-23, it is ideal for sealing hairline cracks in concrete and wooden tanks prior to the application of the main waterproofing membrane.

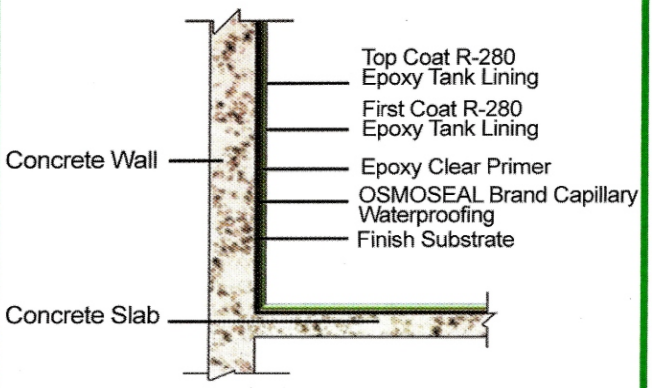
Surface Preparation

As a standard practice for application of high performance specialty coatings, surfaces to be lined with ROMTECH R-280 Tank Lining Epoxy should be clean, dry free of oils, grease, and other contaminants. Remove existing coatings and repair spalled or irregular areas using ROMTECH R-270 Structural epoxy mixed with fine aggregates. Cracks in concrete wider than 1 mm should be injected with ROMTECH R-270 epoxy diluted with ROMTECH EPOXY REDUCER before application of the main coating.

Caution

Wear protective gear to avoid contact with eyes and skin and the inhalation of its vapor. Wash off uncured materials using soap and water. Provide sufficient ventilation to work areas. Keep out reach of children. Store in cool, dry places.

APPLICATION OF R-280 EPOXY TANK LINING
(Epoxy Tank Lining for Cistern Tank)



SECTION DETAIL AT CISTERN / DOMESTIC WATER TANK

Physical Properties

Components:	Part A - Solventless Epoxy Resin Part B – Modified Polyamide Hardener 1 part component B by volume
Mix Ratio:	3:1
Pot Life (Work Time):	30 – 35 minutes
Initial Cure Time:	3 hours
Full Cure Time:	36 hours; full chemical resistance is Reached after seven (7) days.
Packing:	Part A – ¾ gallon
Shelf Life:	Indefinite, as long as the components Are not contaminated with each other And the product is stored in cool dry places
Colors:	Available in standard colors or made to Order variants of the regular colors

SM North EDSA Warehouse

THE SOLUTION

FLEXCOAT

WATERPROOFING PRODUCTS

R-270

STRUCTURAL EPOXY FOR CONCRETE CRACK REPAIR

R-270

Description

The Romtech R-270 structural epoxy, is a 2 component epoxy adhesive specially formulated for the repairs of structural concrete by using pressure injection. It is of low consistency to allow the material to penetrate and fill even a hair line cracks. It cures to a durable, weather resistance bonding agent that permanently bridge the cracks of concrete and restores the structural strength of the damaged slab while sealing it against intrusion of water, humidity and harmful gases that could severely affect the reinforcing bars of the building.

Uses

Romtech R-270 Structural Epoxy, is recommended for the repair of crack's of concrete on floor and wall slabs, beams and girders, storage tanks, roof-decks, and other damaged concrete structures that require more cost-efficient, convenient, and time saving systems of restoration. Romtech R-270 works where other similar epoxies failed.

Applications

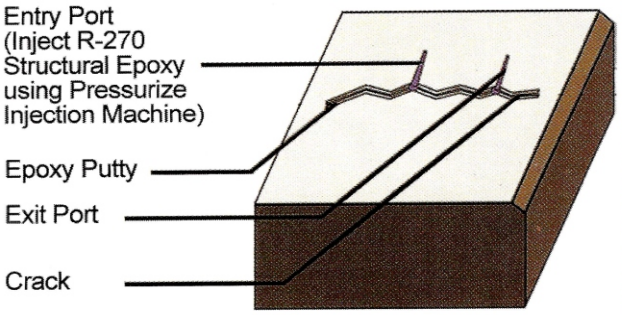
- V – Cut the Surface along the crack line.
- Blow off the dust, debris and other contaminants.
- Install injection ports at regular intervals along the cracks.
- Seal off the V- cut surface using epoxy putty.
- Leave it for 24 hours for the putty to harden.
- With pressure injection equipment, pump in the properly mixed components A and B Romtech R-270 at the starting port until the material comes out of the adjoining port.
- Repeat the procedure until all the cracks have been completely filled.
- Leave it for 24 hours fill curing time for the injected epoxy.

Caution

Avoid contact with eyes and skin. Wash off uncured materials using soap and water. Store in cool, dry places.

APPLICATION / INJECTION OF R-270 STRUCTURAL EPOXY

(For Roofdeck Floor Slab / Crack Repairs)



ISOMETRIC DETAIL

Physical Properties

Components:	A - 100% Liquid Epoxy Resin B – Modified Polyamide Hardener 1 part component B by volume
Mix Ratio:	2 components
Pot Life (Work Time):	30 minutes at 25ºC
Initial Cure Time:	36 hours
Comprehensive Strength:	8,000 psi (pressure/sqr. inch)
Tensile Strength:	3,000 psi (pressure/sqr. inch)
Adhesive Shear Strength:	1,500 psi (pressure/sqr. inch)
Packing:	Part A – 2/3 gallon Part B – 1/3 gallon