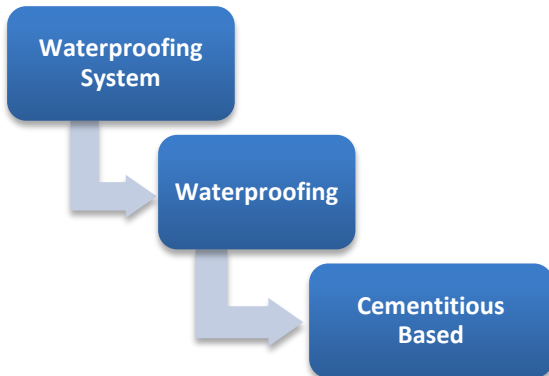


## FAMILY TREE



## PRODUCT DESCRIPTION

Cementitious based waterproof coating formulated with flexible polymers and carefully selected materials resulted in flexible coating solution.

It is specially designed to be used on many common concrete construction substrates.

It is specially designed to suit several common applications. It is suitable for internal and external usages.

It provides a hardwearing, seamless, waterproof membrane for potable water retaining structures, tanks, basements, foundations and culverts

## FIELD OF APPLICATION

<b>Area Type</b>	: <input checked="" type="checkbox"/> Dry	<input checked="" type="checkbox"/> Semi-wet	<input checked="" type="checkbox"/> Submerged
<b>Area Location</b>	: <input checked="" type="checkbox"/> UV Resistant	<input checked="" type="checkbox"/> Below grade	<input checked="" type="checkbox"/> Roof Decks
	<input checked="" type="checkbox"/> Swimming Pool	<input checked="" type="checkbox"/> Fountains	<input type="checkbox"/> Potable Water Tanks
	<input checked="" type="checkbox"/> Planter Boxes	<input checked="" type="checkbox"/> Kitchen	<input checked="" type="checkbox"/> Bathrooms
<b>Type of Application</b>	: <input checked="" type="checkbox"/> Horizontal	<input checked="" type="checkbox"/> Vertical	
<b>Substrates</b>	: <input checked="" type="checkbox"/> Concrete	<input checked="" type="checkbox"/> Cement Mortar	<input checked="" type="checkbox"/> Screed
	<input checked="" type="checkbox"/> Plaster	<input type="checkbox"/> Gypsum Board	<input type="checkbox"/> Cement Board
	<input type="checkbox"/> Plaster Board	<input type="checkbox"/> Wood	

## PROPERTIES

• Excellent adhesion.	• Non-toxic.
• Breathable.	• Chloride free.
• Good resistance to carbon dioxide and chloride ions and water.	• Minimal surface preparation required.
• Single component, just add water at site.	• Fungus, mould resistant.
• Excellent bond to porous and non-porous surfaces.	

## PREPARATION

<b>Working Conditions</b>	: 5° to 35°C.
<b>Tools / Equipment</b>	: Mechanically powered mixer, clean plastic mixing container, brush.
<b>Substrate</b>	: Clean thoroughly and ensure that it is dry and free from dust, oil, grease, paints or any other loose material that might cause de-bonding with the surface. Special considerations to all newly poured cement based substrates. Ensure that substrates are sufficiently cured, dimensionally stable, shrinkage and structural strain movements free and stable. It is recommended to clean the surface using high pressure water jet.
<b>Priming</b>	: No priming is required. Surfaces to be pre-soaked with clean & fresh water prior the application. If High Porous surfaces should be primed with NASA Bond 200 Primer at the rate of 5 m <sup>2</sup> /litre and allowed to dry before applying the first coat.
<b>Joints</b>	: In general, the product shall not be placed above expansion or construction joints. NASA Flexseal shall be used to manipulate the joints

## MIXING

<b>Ratio</b>	: Mix one bag of 25 kg with 3.6 litres of clean water.
<b>Mixing Speed</b>	: 400 - 600 rpm.
<b>Process</b>	: Add the liquid part to the mixing container. Start the mixer and add the powder slowly while

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mixing. Keep mixing the paste for a period not less than 3 minutes after the addition of the powder and until a consistent, homogenous and lumps free mixture is achieved. Stop the mixer and allow the paste to rest for a period of 2 – 3 minutes. Start the mixer and remix the paste for a period of 1 minute before the usage.

<b>Points of Attention</b>	: Do not rework stiff material by adding more water. Where cementitious plaster is to be applied over Apollo Proof R 320, a mix of sand, cement and NASA SBR should be sprayed over Apollo Proof R 320 as key. Addition rate of NASA SBR should be 10 litre/bag of cement
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## APPLICATION

<b>Application Method</b>	: By brush / Roller.
<b>Coating Thickness</b>	: 1 mm per coat.
<b>Coverage</b>	: Approximately 8 m <sup>2</sup> / 25 kg for two coat @ 2 mm thickness. Recommended 2 coats. Actual coverage depends on porosity and texture of the substrate.
<b>Position</b>	: The described process is suitable for vertical and horizontal applications.
<b>Priming</b>	: No priming is required. Surfaces to be pre-soaked with clean & fresh water prior the application. If High Porous surfaces should be primed with NASA Bond 200 Primer at the rate of 5 m <sup>2</sup> /litre and allowed to dry before applying the first coat.
<b>Process</b>	: If priming is carried out, wait until there is no standing water to the surface. Stir the product well. Apply the first coat while the surface is still damp. Apply using a short stiff bristle brush or roller at a minimum of 1 mm thickness per coat. Maintain the same direction of application horizontal or perpendicular. Do not apply random directions. Protect from dust, debris and traffic. Wait until completely dried. Approximate drying time is 3 – 5 hours. If the first coat is fully dried, pre-soaking is needed before applying the second coat. Apply the second coat in perpendicular direction to the first coat direct. To achieve a smooth finish, it is recommended to finish the surface with a trowel immediately after brushing the second coat.
<b>Curing</b>	: The finished surface should be protected from high wind and direct sunshine. Keep the treated area moist for 3-4 days after application. After 4 days, water ponding test maybe carried out.
<b>Cleaning</b>	: All tools / equipment shall be cleaned immediately after use with fresh clean water. Hardened materials should be cleaned mechanically with Solvetech.
<b>Points of Attention</b>	: The finished area can be submerged with water after 5 - 7 days of application depending on ambient temperatures and relative humidity.

## PACKING

<b>Standard Package</b>	: Available in 25 Kg.
<b>Custom Package</b>	: Special packages can be arranged for large requirements.
<b>How to Order</b>	: Specify the Product Name followed with a hyphen and package size.

## STORAGE CONDITION

<b>Shelf Life</b>	: 12 months from the date of manufacturing.
<b>Temperature</b>	: 2°C and 50°C.
<b>Points of Attention</b>	: Store in shaded area and properly sealed in its original packing.

## TECHNICAL PROPERTIES

PROPERTY	STANDARD	VALUE
<b>Standard</b>	ASTM D412, ASTM 4541-02	
<b>Testing Conditions</b>	Tests were carried out in Apollo R&D laboratory @ 25°C	
<b>Component</b>	Single component	
<b>Form</b>	Powder	

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<b>Colour</b>	Grey	
<b>Mixed Density</b>	0.05 ± 1.60 g/cm <sup>3</sup>	
<b>Working time</b>	1 Hour	
<b>Mixing Ratio</b>	3.6 litter water/15 kg bag	
<b>Open time</b>	10 min	
<b>Initial setting</b>	4 - 5 hr	
<b>Application temperature</b>	5 – 45°C	
<b>Flow Brushable consistency @ W/P</b>	0.24	
<b>Flow Sprayable consistency @ W/P</b>	0.27	
<b>Minimum application Thickness</b>	2 mm (with two coats)	
<b>Elongation at break (low speed rate)</b>	ASTM D412	> %10 @ thickness > 2 mm
<b>Tensile adhesion strength</b>	ASTM 02-4541	> 1.6 MPa
<b>Water permeability</b>	DIN 1048 at 7bars	%0

## ATTENTION

<b>PPE</b>	:	It is recommended to use full PPE while working with the product to avoid any possibility of irritation to skin or eyes. In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advice if necessary
<b>Hazardous Classification</b>	:	Non-Hazardous
<b>Fire</b>	:	Non-flammable

## APOLLO AT THE GLANCE

Apollo is confident with the technical solutions and high quality end products served to the customers.

Apollo invites you to explore other services and products:

- |  |                                      |                                      |
|--|--------------------------------------|--------------------------------------|
| • R&D and manufacturing custom solutions | • Adhesives                          | • Bonding Agents Systems             |
| • Building Finishing Systems             | • Concrete Admixture                 | • Concrete Repair Systems            |
| • Flooring Systems                       | • Grouts & Anchoring Systems         | • Painting & Putty Systems           |
| • Protective Coatings                    | • Sealant & Jointing Solutions       | • Structural Strengthening Solutions |
| • Surface Treatment Solutions            | • Tile Adhesive & Grouting Solutions | • Waterproofing Systems              |