

ARACO FLEX (Formerly know as ARACO SEMI FLEX)

Flexible, Acrylic Polymer modified, Cementitious Waterproof Coating for Masonry and Concrete Structures

Product Description

ARACO FLEX is a cement-based, two component, acrylic polymer modified, waterproof coating for concrete, masonry and most other construction materials against positive water pressure for internal and external waterproofing.

ARACO FLEX is a flexible, durable, hardwearing and seamless. It provides an effective barrier to waterborne salts and atmospheric gases to prevent carbonation.

Meets the requirements for ASTM D 4541; D 870

Applications

ARACO FLEX is suitable for the following applications:

- Water retaining structures such as water tanks, swimming pools, potable water tanks, waste water treatment plants and sea water channels.
- Water excluding structures such as basements, tunnels, sea defense walls
- Foundations and retaining walls.
- Wet areas such as showers, bathrooms, toilets, kitchens, balconies and roofs.
- As a protection coat for reinforced concrete elements against carbonation and chloride attack.

Product Advantages

- Non-toxic. Suitable for use in contact with potable water.
- Flexible
- Waterproof - Resist up to 3 Bar.
- Suitable for internal and external applications
- Breathable - whilst repelling water, allows substrate to breathe.
- Brush, roller, trowel or spray applied.
- High resistance to carbon dioxide and chloride ion diffusion
- Excellent adhesion - bonds to porous and nonporous surfaces
- Compatible with adhesives used for fixing ceramic, mosaic and natural stone coverings.
- Resist occasional foot traffic.
- Resistance to aging.



Package: 25 kg double pack (20 kg powder + 5 kg liquid)

Surface Preparation

- The surface to be coated must be clean, sound, dust free and un-contaminated.
- Remove Loose parts, form release agents, cement laitance and paint.
- Mechanically cleaned, use suitable cleaning method including high pressure water jetting, grit blasting and grinding.
- It should be sufficiently cured so that any shrinkage has already occurred.
- Wall to floor intersection should be cut 20X20 mm along the junction. It should be filled with sand/cement mortar modified with **ARACO BOND** and rounded out to 40 mm minimum radius.
- Concrete Surfaces should be leveled and as flat as possible.
- Cracks, blowholes and construction joints should be opened longwise in a V shape to a depth of about 3 cm and filled with **ARACO GROUT 150** in trowelable consistency.
- Defected concrete should be filled with suitable repair mortar.
- It is important to stop water ingress prior to the application of **ARACO FLEX**.
- Wash the substrates with clean water and remove any excess water at the time of application to achieve SSD Condition.

Mixing Ratio

- FLEX 4: 1 (Powder: Liquid) by weight
- Trowelable 5.5: 1 (Powder: Liquid) by weight

Mixing

- **ARACO FLEX** is supplied in premeasured units.
- **ARACO FLEX** can be obtained by mixing a 20 kg bag of **ARACO FLEX** powder with 5 liters of **ARACO FLEX** liquid.
- To achieve trowelable consistency, add 20 kg of **ARACO FLEX** powder to 5.5 liters of **ARACO FLEX** liquid.
- Add the liquid component into clean container, and then add the powder component slowly while mixing.
- Mix using slow speed drill fitted with suitable mixing paddle.
- Mix for 2–3 minutes until a homogeneous consistency is achieved.
- Leave the mixture for 3 minutes. Then re-mix for 2 minutes. Do not over mix.
- Mix material that can be applied within one hour (pot life).

Product Application

First coat

- Apply **ARACO FLEX** with a brush, trowel or spray.
- Saturate concrete surfaces with clean water. Ensure that the substrate to be treated is damp but not wet at the time of application.
- Apply the first coat of **ARACO FLEX** uniformly at application rate of 1 kg/m².
- Do not spread the material too thin.
- Brush it well into the surface and finish it in one direction for neat appearance.
- Leave the first coat to dry for 4 – 6 hours minimum before applying the second coat.

Second coat

- Apply the second coat exactly as mentioned above onto the first coat and finish it in one direction preferably at right angle to the previous coat.

Curing

Never use curing compounds. In hot weather, provide suitable protection against weather conditions while setting. In cold, humid or unventilated areas, it may be necessary to leave the application for a longer curing period or to provide adequate ventilation.

Finishing

- When surfaces are to be coated after treating with **ARACO FLEX**, it should be left to cure for at least 7 days. Do not use solvent-based paints.
- When a sand / cement plaster finish is required on top of **ARACO FLEX**, it is essential to apply a rough coat (spatter dash coat) of sand / cement mortar modified with **ARACO BOND** onto the final coat while it is still tacky.
- In areas where ceramic tiles will be installed on top of **ARACO FLEX** such as wet areas, use **ARACO FLEX BOND** or **ARACO TILE FIX PLUS**.

Recommendations

- Do not use **ARACO FLEX** on plasters, painted walls and plywood.
- Avoid application in direct sun and/or strong wind.
- Do not mix **ARACO FLEX** by hand.
- Do not mix **ARACO FLEX** with admixtures, cement or aggregates.
- Do not add water to **ARACO FLEX** in any circumstances.
- When the material begins to drag, do not add any water, but dampen the surface again.
- Apply only to sound and prepared substrates.
- Do not exceed maximum layer thickness, the maximum application thickness is 2 mm/coat.
- Do not mix more material than can be used in 45 minutes (pot life).
- When rain is anticipated within 24 hours after application, the surface should be protected.
- For underground structures, backfilling can be carried out 3 days after completion of the **ARACO FLEX** treatment.
- Filling water retaining structures with water can take place usually not less than 14 days after application. If earlier filling is required, filling may be considered after not less than 7 days ensuring that the surface is thoroughly checked for hardness.

Consumption

First Coat: 1 kg/m²/coat.

Second Coat: 0.5 - 1 kg/m²/coat. Depending on the condition of the surface and method of application.

Note:

Coverage rate takes no account of wastage and may vary according to the type of surface involved.

Technical Data

Density of the mix	1.85 Kg/m ³	
Toxicity	Non toxic	CRD C48
Resistance to water pressure	3 bar	
Substrate Temperature	+5°C minimum / +40°C maximum	
Compressive Strength	30 - 40 N/mm ²	ASTM C 942
Bond Strength	2-3 N/mm ² ASTM C-1042-85	
Flexural Strength	10 - 12 N/mm ASTM C-580-94	
Elongation	> 25%	ASTM D 412
Pot life	60 minutes at 20°C	
Time between coats	6 hours minimum at 20°C	

Safety Instructions

The product may cause skin irritation. Wear gloves and goggles and apply barrier cream to your hands. In contact with eyes or mucous membrane. flush immediately with plenty of warm water and seek medical attention without delay.

Product Data

Composition ARACO FLEX powder is blend of specially selected cements, silica sand and reactive fillers.
ARACO FLEX liquid is component of blended acrylic copolymers and wetting agents.

Appearance	Grey or White
VOC	< 5 gm/l
Storage condition	Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates, the product must be stored in an air-conditioned environment.
Shelf Life	12 months minimum from production date if stored properly in original an opened packaging

Legal Notes

The information, recommendations, and application are based on ARACO current knowledge and experience of the products when properly stored, handled, and applied under normal conditions. ARACO products are guaranteed against defective materials and manufacture and sold subject to standard conditions. Users should always refer to the most recent technical data sheet for the product concerned, copies of which will be supplied on request.

More from ARACO

A wide range of construction chemical products is manufactured by ARACO which include:

- Premixed mortar
- Tile adhesives & Grout
- Concrete Repair
- Flooring systems
- Protective Coating
- Waterproofing
- Bonding Agents
- Concrete Admixtures
- Surface Treatments
- Grout & Anchors
- Sealants
- Sports Flooring