



Two component Solvent Free Hybrid Polyurea / Polyurethane Aliphatic High Resistant to Extreme Climatic Conditions and Waterproofing Coatings

### DESCRIPTION OF THE PRODUCT

Complies with ASTM C-1250 D-2196 D-1475 ASTM D 570

**Rainproof PWR 690** is a Two component 100% Solvent free fast setting hybrid polyurea/ polyurethane, Aliphatic High Resistant to Extreme Climatic Conditions and Waterproofing coatings with superior Mechanical properties and it is thermal, UV resistant and also chemical and weather resistant. Hybrid Polyurea-Polyurethane waterproofing system offers a robust solution for concrete structures, combining the strengths of both Polyurea and polyurethane materials. These systems are known for their excellent waterproofing capabilities with Fast curing, UV resistant, tough, Thick Film and long lasting durability making them suitable to use for variety of Applications.

### AREAS OF APPLICATION :

- ★ Recommended to areas exposed to Extreme Climatic condition.
- ★ In construction works, such as highways bridge decks, tunnels, foundations
- ★ Under thermal insulation boards on flat roofs
- ★ Flat roofs, balconies and walkways
- ★ Polyurethane foam, metal surfaces etc.
- ★ Water retaining structures in power plants.
- ★ Roof waterproofing
- ★ Marine Environments
- ★ Water Storage Tanks (incl. portable)
- ★ Bathrooms & Kitchen foundation
- ★ Swimming pools
- ★ Basement foundation & walls

### ADVANTAGES :

- ★ Excellent resistant to UV rays and pertaining UV radiations in industrial or coastal areas by enhancing their longevity and performance.
- ★ Excellent resistant to Extreme Climatic Conditions and range of high end chemicals, without disturbance in longevity
- ★ Provides life long protection to concrete and other masonry. Once coated the surface is completely impervious to water.
- ★ Applied as thick film (1.2 - 2.0 mm) this premium, high performance product will last upto 30 years and more.
- ★ Rainproof PWR 690 Coatings are completely impermeable to water and have very low water absorption in continuous immersion. Saturated weight gain < 1.20% standards ASTM D-570.
- ★ Excellent crack bridging properties, upto 150 to 600 % Elongation.
- ★ Excellent Chemical resistance (ASTM D-543)      ★ Very low VOC    ★ High Adhesion
- ★ Excellent durability of coating formed in to a tough and thick resilient film
- ★ It is easy to apply by brush/roller/airless spray
- ★ Seamless and elastic membrane with fast curing

### TECHNICAL PROPERTIES :

PROPERTY	RESULTS	PROPERTY	RESULTS
Colour	White	Bond strength to concrete	161.47 N (ASTM-C794)
Mixing Ratio	Resin based (Part A) - 2 Parts	Hardness	> 65 Shore D (ASTM-D2240)
	Activator (Part B) - 1 Part	Abrasion resistance	20 mg / 1000 cycles : kg
Solids by Volume	100%	Consumption	> 1.05 kg / m <sup>2</sup> per mm thickness
Voc content	18.18 g/ltr. (SCAQMD 304-91)	Layer thickness	> 2mm
Viscosity component Part A	Approx 2300 Mpas	Water vapour transmission rate	0.645 gms/m <sup>2</sup> /day (ASTM-F1249)
Viscosity component Part B	Approx 2300 Mpas	Permeance	.054 Metric perms (ASTM-F1249)
Density Part A	1.11 Kg / Ltr	Gel time, walkable	1 Hr.
Density Part B	1.7 Kg / Ltr	Cure time, walkable	3 Hrs.
Tensil Strength	> 30 Mpa (ASTM-D 412)	Water absorption	< 1.5% (ASTM-D570)
Elongation at break	> 700% (ASTM-D 412)	Shore a hardness	> 85
Tear Strength	79 Mpa (D-624, Die C)	Permeability	MOCON 0.005 perm inch.
Adhesion to concrete	> 380 PSI (ASTM-D 4541)		



## APPLICATION METHOD :

### SURFACE TREATMENT BEFORE APPLICATION

Prepare the surface by cleaning the concrete surface with grinder / wire brush and high pressure water jet and Ensure that it is free of dust, oil, grease, grime and loose particles. The terrace substrate must be checked for its soundness, damaged portions, hollow areas must be repaired with epoxy mortar.

Small Cracks Should be opened out, Cleaned and filled with Epoxy Mortar **Roofcrete EP**. Expandable cracks must be sealed with **Roofexseal PU Polyurethane sealant**

### For smooth and non-absorptive Substrates

Substrates should be prepared by grinding, sand blasting Water jet blasted, shot blasting etc., depending on their nature. The surface should be well cleaned from dust with a high-suction Vacuum cleaner.

### Metal/Wood surfaces

Check the substrate condition and joints of metal/wood . Must be repaired with suitable method. Loose rust, mill scale and deteriorated coatings can be removed by suitable chemical treatment and effective use of hand and power tools. Use of ultra – high pressure water jetting to achieve various degrees of surface cleanliness.

**Primer Application :** As per the Site Condition, ARMSTRONG Recommends **Shineshield WP 305** a Polyurethane waterproof primer, minimum 0.15 mm thick (one coat).

## MIXING OF THE RAINPROOF PWR 690 AS A MAIN COAT :

**Part-A (Resin base) 2 parts** and **Part-B (Activator) 1 Part** are packed in two separate containers, having the correct

**Part - A 2 parts : Part - B 1 Part** mixing ratio by weight. Stir individual container separately, **Part-A** and **Part-B** should be mixed for about 2-3 minutes with a low-speed mixer (300rmp),until the mixture near the sides and bottom of the container to be thoroughly mixed to achieve uniform dispersion of the Activator. The coating thickness to be maintained is 1.2 mm.

**APPLICATION TOOLS :** Brush or Airless Spray

## APPLICATION & CONSUMPTION

Avoid applying if the air dew point is less than 30°C below the ambient temperature. Avoid applying during times of rapidly rising temperatures (forenoon) or if inclement weather is imminent. Over dry primed surface, apply mixed **Rainproof PWR 690** material with brush / roller /spray at the rate of @ 1 sq.mt. per 1.2 kg.

## HEAT REFLECTIVE TOP COAT or POLYURETHANE COATING :

If site condition requires ARMSTRONG recommends One or Two Coats of **Summershield Cool 666** as a top coat over the **RAINPROOF PWR 690** treatment as a solar reflective Aliphatic coating with SRI index of 112 to reduce room temperature by 12°C to 15°C in peek summer or apply Rainproof PU 400 High Polyurethane Coating.

**PACKING :** Resin : 10 & 20 Kgs. | Activator : 5 & 20 Kgs.

**SHELF LIFE :** 12 months from the date of Manufacturing

ARMSTRONG products are tested, approved and extensively used in the works of CPWD., State PWDs', Irrigation, Housing Boards, Thermal / Hydel Power Projects, Steel Projects, Road Projects, Water works Projects, MES, Railways & Scores of important projects Internationally.

Whilst **ARMSTRONG CHEMICALS PVT. LTD.** strives to ensure that any advice, information or recommendation given are appropriate and correct. It cannot accept any liability directly or indirectly arising out of the use of products since the method and place of application of the products are beyond its control.

**Authorised Distributor / Stockist**

**ARMSTRONG CHEMICALS**  
TRUSTED AND ACCLAIMED FOR ITS  
MULTIPLE ACTION PERFORMANCE



**Manufacturers :**

# ARMSTRONG CHEMICALS PVT. LTD.

An ISO 9001 Certified Company

Regd. Off : 36/1, G-5, New International Airport Road, Ganga Nagar, BENGALURU - 560 032.

e-mail : [armstrongchemicals@gmail.com](mailto:armstrongchemicals@gmail.com); Web : [www.acpl.live](http://www.acpl.live) | [www.armstrongchemicals.in](http://www.armstrongchemicals.in)

Please Contact for Customer Care Information : **08095621122** | Toll Free No. **1800 103 2034**