



Technical Datasheet  
Polymer Cement Modifier

# PUMAPOL SA

## DESCRIPTION

Pumapol SA is a polymer emulsion which is used to replace part of the gauging water in cement based mixes. The addition of Pumapol SA to cement and aggregate mixes produces the following advantages:-

- 1) Thin sections can be applied down to 9 mm..
- 2) Flexural strength is improved and fewer expansion joints are required.
- 3) Cure rates accelerated.
- 4) Reduced permeability.
- 5) Reduced dusting.
- 6) Improved water resistance.
- 7) Improved slip resistances for vehicular and pedestrian traffic.

## COMPOSITION

Pumapol SA is a styrene acrylate copolymer emulsion.

## TYPICAL USES

Pumapol SA is used to produce polymer modified grano flooring and sand cement screeds and renders with high physical strengths and excellent resistance to spillage of water or fuel oils. Polymer modified cement flooring systems are, as the name implies, only an improved cement mix and should not be confused with resin flooring systems which exhibit much higher chemical resistance. Pumapol SA modified cement mixes may also be used to effect repairs to concrete floors and structures.

## TYPICAL MODIFIED MIXES

*Heavy duty grano:-*

75kg 3mm Granite chips  
75kg dried silica sand  
50kg Portland cement  
10 litres Pumapol  
Approx. 8 litres water  
Coverage 6-7m<sup>2</sup> at 12 mm

## PUMAPOL PREMIX

Pumapol premix is a heavy duty pre-bagged mix which is supplied to assist the user who does not wish to measure off product on site. Pumapol premix is produced from graded silica, granite and cement and is supplied in 25kg polypropylene bags. 25kg Premix requires 1 litre Pumapol SA and approximately 1 litre of water.

## SURFACE PREPARATION

To be assured of maximum adhesion and properties from Resdev resin products the correct surface preparation is essential. Please refer to technical data sheet "Surface Preparation" reference TD102.

## APPLICATION CONDITIONS

5-25°C

## PRIMING

The Substrate must be primed to ensure bonding of the modified mix. Pumaprime T.C. is recommended. Please refer to technical data sheet reference TD001.

## MIXING

Best results are produced by using a forced action mixer. Mix the aggregates together dry, add the Pumapol SA then add water until the mortar just holds together when squeezed in the hand.

## APPLICATION TECHNIQUES

Apply by trowel or plasterers float, working the polymer cement up to the surface. Do not second trowel after the polymer has started to cure.

## SEALING

Polymer modified cement mixes exhibit poor resistances to chemical contact. Resultantly areas subject to intermittent or continuous chemical contact should be oversealed with a suitable screed, topping or coating. Please refer to technical data sheets reference TD011 – TD094.

## TECHNICAL DATA

Tests were carried out to BS6319 using a heavy duty mix and allow a curing time of one day in the mould followed by 27 days air drying.

## RESULTS

	1 part OPC 1.25 parts sand 1.25 parts granite	
	Control	Pumapol
<b>Compressive strength N/mm<sup>2</sup></b>	79	103
<b>Flexural strength N/mm<sup>2</sup></b>	11.4	15.4
<b>Density (dry) g/mm<sup>2</sup> x 10</b>	2.37	2.29
<b>Tensile strength N/mm<sup>2</sup></b>	5	8
<b>Water : Cement</b>	0.34	0.27
<b>Density wet Mix kg/cm</b>	2400	2390
<b>24 hour water absorption % gain in weight</b>	2.02	0.84

## HEALTH AND SAFETY

Please read technical data sheet reference TD103 and specific health and safety data for this product provided in compliance with the requirements of EC Directive 91/155.

## STORAGE, MIXING & APPLICATION

The storage, mixing and application conditions can affect the quality of the finish produced. Please read technical data sheet reference TD104.

## TECHNICAL ADVICE

For further information on this or any other Resdev product, please contact our Customer Care Department on 01422 379131.