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Product Data Sheet PDS002: Armourcoat Spatulata P80

Finishes: Spatulata, Striated, SMG

1 Product Description

Armourcoat Spatulata P80 is a ready mixed superfine marble stucco paste that is trowel applied in a series of fine layers to create a highly polished decorative surface. Armourcoat Spatulata P80 is made from a combination of ultra fine lime putty, micronised marble powder and special additives formulated to give outstanding workability and surface polish. Armourcoat Spatulata P80 is made from almost entirely natural mineral materials and is exceptionally hard due to the quality and fineness of the slaked lime and marble used in its manufacture. Armourcoat Spatulata P80 can be tinted to almost any colour of the spectrum.

2 Properties

- natural mineral material
- environmentally friendly
- pot life 4 - 6 hours
- wide colour range for interior use
- good workability in a wide range of site conditions
- good water vapour permeability
- excellent fire resistance (ASTM E84 - Class 1)
- provides a hard and durable polished surface for interior and exterior use (please refer to SSS10)
- non Newtonian thixotropic paste Viscosity 85000cP +/- 20000cP
- specific density 1.6 kg/L +/- 0.1kg/L
- completely non-combustible as supplied or when applied

3 Health and Safety

Armourcoat Spatulata P80 is a water based product that is non combustible and has low VOC emissions. As supplied in the wet state Armourcoat Spatulata P80 is highly alkaline and therefore prolonged skin contact during application must be avoided as this can lead to skin sensitivity or dermatitis.

Wear eye protection and if contact with the skin occurs wash affected areas immediately with soap and water.

4 Suitable Substrates

- Armourcoat Spatulata P80 can be applied to any backing that is firm and true and will not crack. However in our experience the best substrates to work onto are taped and jointed plasterboard and freshly plastered walls that are fully dry.
- Never attempt to apply Armourcoat Spatulata P80 over wallpaper or lining paper. Great care should be taken on surfaces that are already decorated.
- Armourcoat Spatulata P80 can be applied to existing painted surfaces provided the paint is well adhered to the wall.
- A flat or true substrate is vital to achieve high quality results as any bumps or imperfections may show up in the finished surface. Whilst Armourcoat Spatulata P80 will bond adequately to MDF great care should be taken when using it as a substrate as it will tend to crack along any joints. MDF may also swell and warp.

Armourcoat have full specification sheets for all types of substrate.

5 Applying Armourcoat Spatulata P80

Armourcoat Spatulata P80 is applied to a thickness of no more than 0.5 - 0.7mm and when finished will have a highly polished and glossy surface. Any undulations or imperfections in the substrate will be mirrored in the final finish and therefore great care must be taken in preparation prior to the final application. For substrates that are not sufficiently flat to proceed directly Armourcoat recommends the application of two layers of its K149 Fine Keycoat trowelled down to a smooth surface before the application of Armourcoat Spatulata P80.

- apply Armourcoat K40 Primer to the wall by brush or roller. Leave to dry. On porous surfaces Armourcoat K40 Primer will be sufficiently dry within 2 - 4 hours. However on sealed surfaces such as paint we recommend the Armourcoat K40 Primer is left to dry overnight
- once the Armourcoat K40 Primer is dry apply a consistent layer of the Armourcoat Spatulata P80 over the surface and leave to dry. Try to minimise any trowel lines. In warm conditions the layer of Armourcoat Spatulata P80 may be visually dry within an hour at which point you can apply a second layer of paste to achieve a flat smooth and consistent surface. In cold or damp conditions the drying process may take up to 4 - 6 hours or even longer
- sand off any minor lines or blemishes with 320 grit sandpaper and wipe the surface to remove any dust. (when applying dark colours try to keep any sanding to a minimum as the dust can become ingrained into adjoining surfaces and is difficult to remove)
- taking a small amount of the Armourcoat Spatulata P80 onto the small trowel apply as a patch to the surface and then pass over once again to remove the material. Apply a series of consistent patches in this way which are not quite overlapping to an area of 1 - 2m²
- pass over the same area once again filling in the spaces between the previous patches. As the patches dry out scrape lightly across the surface with a clean blade to remove any lines or small dried lumps of material and then work a final tight coat progressively over the entire surface
- if you are working alone after every 2 - 3m² clean the trowel and drop back to trowel and polish the surface. If you are working in a pair the second person should follow closely behind polishing the surface with a clean blade in a series of small random strokes. If there are areas that remain darker and will not polish up it will be due to excess moisture. Leave for 10 - 15 minutes and polish again
- leave to dry. Do not apply Armourcoat Wax for at least 2 - 3 days
- Armourcoat Spatulata P80 is a natural mineral material and if left in its natural state will allow the substrate to breathe. If protection against dirt and spillage is required it can be waxed with Armourcoat White Wax, Armourcoat Ecowax or Armourcoat Aquawax. (see relevant product data sheets)
- if you choose to wax the finish we recommend that the surface is left for several days to dry and cure. The longer Armourcoat Spatulata P80 is left exposed to the air the greater the level of carbonation and consequent surface hardness

6 Test Data

Tests were carried out on samples of Armourcoat Spatulata P80 which had been treated with Armourcoat White Wax as per application instructions.

6.1 Mould/Mildew Resistance

Armourcoat Spatulata P80 samples were tested in accordance with:

ASTM D 3273 Standard Test Method for Resistance to Growth of Mould on the Surface of Interior Coatings in an Environmental Chamber

ASTM D 3274 Standard Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Microbial (Fungal or Algal) Growth or Soil and Dirt Accumulation

Plaster	Finish	Post Treatment	Front of Panel*	Back of Panel*
Armourcoat Spatulata P80		-	10/10/10	10/10/10

*Rating system: 1 is very poor. 10 is no growth

Testing was carried out by an accredited American testing laboratory.

6.2 Pencil Hardness

Armourcoat Spatulata P80 samples were tested in accordance with ASTM D 3363 using a set of Berol turquoise hardness pencils.

Sample	Armourcoat Spatulata P80 B0222
Pencil Hardness	5H

6.3 Shore D Hardness

A test panel of Armourcoat Spatulata SP P80 on 6mm MDF was tested for hardness using an Sauter HBD100-0 Shore Durometer D. An average of 5 readings was taken. Tests were carried out at 23C and 35% RH.

Sample	Armourcoat Spatulata SP P80
Shore D Hardness	74

6.4 Scrub Resistance

The following performance test was performed by an American laboratory. Consequently the results are quoted to American Standard Modified ASTM D 2486 79.

10 grams of scrub medium and 5 grams of water were applied to the brush. The test was halted after 10,000 cycles.

After 10,000 cycles the Armourcoat Spatulata P80 had not worn through to the undercoat.

The lab considers that for a wall coating Armourcoat Spatulata P80 is exceptionally hard.

6.5 Impact Test

Armourcoat Spatulata P80 samples were tested using the Gardner Impact Resistance Test in accordance with ASTM D 2794. The test procedure utilised a 4lb weight in a 36 guide tube with a 0.5 diameter hemispherical indenter.

Sample	
Forward Impact	2 inch per pound

Please note that Armourcoat Spatulata P80 is very hard and failure is usually due to the deformation of the substrate which in this case was a medium density particle board.

6.6 VOC Testing

A sample of Armourcoat Spatulata P80 was tested for VOC by an accredited American testing laboratory following procedures outlined in ASTM D3960 Standard Practice for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings. A second sample of Spatulata P80 was tested for VOC content by an accredited European laboratory following procedures outlined in ISO 11890-2 "Paints and varnishes. Determination of volatile organic compound (VOC) content".

Test Method	VOC (grams/litre)	VOC (Lbs/Gal)
ASTM D3960	68	0.6
ISO 11890-2	48	

6.7 Fire Testing

6.7.1 British Fire Test Results

BS 476: Part 6: 1989

Fire propagation index,1	2.2
Subindex,i1	1.0
Subindex,i2	0.9
Subindex,i3	0.3

BS 476: Part 7: 1997 Class 1 surface spread of flame.

Armourcoat Spatulata P80 complies with requirements for CLASS 0 AS DEFINED IN PARAGRAPH a12(B) of Approved Document B, Fire Safety, to the Building Regulations 1991.

6.7.2 American Fire Test Results

Test carried out in accordance with the procedure outlined in ASTM E84 98 Standard Test Method for Surface Burning Characteristics of Building Materials

Fire Spread Index	5
Smoke Spread Index	10
Flame Spread Classification	Class 1

6.7.3 European Fire Test Results

Independent tests were carried out in the UK for classification of reaction to fire performance in accordance with EN13501-1:2007+A1: 2009.

Reaction to fire classification:

A2 - s1, d0

7 Coverage Rates

Armourcoat Spatulata P80 is supplied in 12kg and 24kg units. The coverage rate of Armourcoat Spatulata P80 will vary depending upon the application procedure and the number of coats applied (see section above). Coverage will vary from 0.8kg - 1kg/m².

8 Storage

Store Armourcoat Spatulata P80 in dry conditions between 5° - 25°. Protect from frost. Protect from sunlight and sources of direct heat. Keep container sealed when not in use.

Shelf life of Armourcoat Spatulata P80 in unopened container under correct storage conditions is 24 months from date of manufacture.

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