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Product Data Sheet PDS003: Armourcoat Armuralia P50

1 Product Description

Armourcoat Armuralia P50 is a ready mixed marble stucco paste that is trowel applied to create smooth or finely textured finishes which resemble polished stone in their appearance, hardness and feel to the touch.

Armourcoat Armuralia P50 is made from a combination of ultra fine lime putty and crushed white marble that has been carefully graded to impart outstanding workability and final trowel polish. Armourcoat Armuralia P50 is an almost entirely natural mineral material and is exceptionally hard due to the quality and fineness of the slaked lime used in its manufacture.

Armourcoat Armuralia P50 may be tinted to almost any colour of the spectrum.

2 Properties

- provides a hard and durable polished surface for interior and exterior use* (limitations apply)
- natural mineral, environmentally friendly material
- wide colour range for interior use
- good workability in a wide range of site conditions
- good water vapour permeability
- non Newtonian thixotropic paste viscosity 85000cP +/- 20000cP
- specific density 1.8 kg/L +/- 0.1 kg/L
- dry solids content 76% +/- 2%

3 Health and Safety

Armourcoat Armuralia P50 is a water based product that is non combustible and has very low VOC emissions. As supplied in the wet state Armourcoat Armuralia P50 is alkaline and therefore prolonged skin contact during application must be avoided as this could cause dermatitis to sensitive skin. Wear eye protection. If contact with the skin occurs wash affected areas immediately with soap and water.

4 Suitable Substrates

Armourcoat Armuralia P50 can be applied to any backing that is firm and true and will not crack. 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 Armuralia P50 over wallpaper or lining paper. Great care should be taken on surfaces that are already decorated. Armourcoat Armuralia P50 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 Armuralia P50 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 Armuralia P50

To achieve a good application of Armourcoat Armuralia P50 it is crucial to have a surface with a good mechanical key and one that will provide a certain amount of suction. Uneven suction across a wall can affect the final pattern with some parts of the wall drying and polishing up much faster than others. We therefore recommend the use of Armourcoat K40 Primer followed by a coat of

Armourcoat Armuralia P50 or Armourcoat K149 Fine Keycoat:

- apply Armourcoat K40 primer by roller or brush and leave to dry
- apply a fine layer of the Armourcoat Armuralia P50 or Armourcoat K149 Fine Keycoat to the wall and work over the surface to remove any obvious lines or scratches. Leave to dry
- apply a consistent layer of Armourcoat Armuralia P50 working it into the undercoat, and pass the trowel over the surface to remove any obvious lines
- leave this layer to dry out a little and when it is just starting to show lighter patches, work a fine layer of the material into the first coat working progressively across the wall
- trowel the surface at 10 minutes intervals until the correct level of polish is achieved
- the final surface will be highly polished with subtle movement and variation. Armourcoat Armuralia P50 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. If you choose to wax the finish we recommend that it is first left for several days to dry and cure
- the longer it is left exposed to the air the greater the level of carbonation and therefore consequent hardness

6 Test Data

6.1 Mould/Mildew Resistance

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 Armuralia P50 | - | - | 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 Shore D Hardness

A test panel of Armourcoat Armuralia P50 AM Y0555 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 23°C and 35% RH.

| Sample | AM P50 Y0555 |
|------------------|--------------|
| Shore D Hardness | 67 |

6.3 VOC Testing

A sample of Armourcoat Armuralia P50 was tested for VOC by an accredited American testing laboratory following procedures outlined in ASTM D3960 Standard Practise for Determining Volatile Organic Compound (VOC) Content of Paints and Related Coatings. A second sample of Armuralia P50 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 | 22 | 0.2 |
| ISO 11890-2 | 13 | |

6.4 Fire Testing

6.4.1 American Fire Test Results

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

| | |
|-----------------------------|---|
| Flame Spread Index | 7 |
| Smoke Spread Index | 1 |
| Flame Spread Classification | 1 |

6.4.2 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

The coverage rate of Armourcoat Armuralia P50 will vary depending upon the application procedure and the number of coats applied.

Typically coverage will vary from 1.6 2.0 kg/m² applied in 2 coats.

8 Storage

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

Shelf life of Armourcoat Armuralia P50 in unopened container under correct storage conditions is 24 months from date of manufacture.

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