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Product Data Sheet PDS054: Armourcoat Acoustic Topcoat Plaster

1 Product Description

Armourcoat Acoustic Topcoat Plaster is a fine marble based plaster finish with micro porosity. The micro pores in the surface allow the sound energy to pass through the plaster so it is attenuated in the mineral wool layers below. Combined with the Armourcoat Acoustic Base panels it offers a seamless system with exceptional sound absorption and acoustic performance.

AP335 - Acoustic plaster manufactured from white marble granules with particle size of 0.3- 0.5mm to give a fine surface finish.

AP347 - Acoustic plaster manufactured from white marble granules with particle size of 0.4-0.7mm. The AP347 can be used as a surface finish with a more granulated surface or as a basecoat / smoothing layer ready to receive a final layer of the AP335.

2 Properties

- made from 80% recycled crushed marble*
- natural mineral system
- zero VOCs
- seamless finish up to 200m² without joints (dependent upon size of application team , application temperature and humidity)
- resistant to mould and mildew
- non combustible
- ultra matt surface
- durable marble plaster finish
- wide range of colours available

*pre consumer recycled marble

Product density (unmixed) 1.6- 1.7 kg/l

Product density (Mixed) 1.15 -1.4 kg/l

Viscosity range (mixed) 40,000 - 60,000 cp

Solids Content - 73.5% +/- 1%

3 Health and Safety

Gloves and eye protection should always be worn when mixing or handling the Armourcoat Acoustic Topcoat plaster which contains fine particles of crushed marble. Eye protection and gloves should be worn throughout application and finishing of the Armourcoat Acoustic system. If body contact occurs with any system component wash affected areas with soap and water.

4 Performance

- Fire rating - BS 476 Part 6 & 7 - Class '0'
- Resistance to fire EN ISO 13501 -1 2007 A2 S1 D0
- Resistant to mould and mildew
- Zero VOC as tested to ISO 11890-2

5 Installation

Armourcoat Acoustic Topcoat plaster can be applied by trowel or spray application. Spray application is recommended for large areas and trowel application for smaller or more intricate situations.

Armourcoat Acoustic Topcoat is supplied as a pre blended material but it will require mixing immediately prior to application. Mix the material for minimum of 2 minutes with a plaster mixing drill on the fast setting (600 rpm) with 120mm diameter plaster whisk attachment . If the material looks a little stiff a small quantity of additional water can be added at the mixing stage (maximum 300ml per bucket). If the mixed material is not used within 60–90 minutes it should be remixed prior to use.

- For spray application the material should be pre mixed and loaded into the hopper of the spray machine. (Armourcoat recommends the Graco RTX 1500 or the TMax 506 spray machines)
- For hand application load the wet material onto a large (480mm or 680mm) stainless steel 5mm or 6mm notched trowel and spread onto the surface. Apply the material to an area of 2-3m² and then run over the surface with the notched trowel at an angle of 30°–40° using a firm pressure to remove any excess material. Once you have a consistent layer of material the surface can be smoothed down. Flatten down the surface using the rigid straight side of the notched trowel tool .
- Final Smoothing of the surface is achieved using the Armourcoat 14" or 18" Ultraflex stainless steel trowel held at an angle of about 10° to the plane of the surface.
- Make sure all the tooth lines are taken out of the surface and leave for 30–60 minutes then trowel the surface lightly to smooth out any feint lines or irregularities.
- Shine a strong light across the surface of the ceiling during the smoothing process to make it easy to see any surface imperfections. The surface can be given a final smoothing down after 2 hours if required.

Installation temperatures

The Acoustic topcoat relies entirely on evaporation of water from the material to harden up. The recommended temperature range for application of Acoustic Topcoat is 12- 25°C . Higher temperature will reduce the working time and lower the surface area that can be achieved in a single application.

Application at lower temperature will result in slow surface drying which will result in a poorer quality of surface finish as the top surface needs to dry sufficiently for the trowel not stick to the surface whilst the material below still has sufficient workability to be smoothed properly.

6 Testing

6.1 VOC Testing

A sample of Acoustic Topcoat 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)	Comments
ISO 11890-2	< 1.0		Limit of detection = 1 g/L

6.2 Fire testing

Acoustic plaster AP335 and AP347 are identical in their formulation other than the particle size of the marble aggregate.

Acoustic Topcoat plaster tested for calorific value to EN ISO 1716 - 0.151 mj/kg

Reaction to fire as tested as part of full acoustic system to EN13501-1 2007 - A2 S1 D0

6.3 Mold Resistance

Samples were tested in accordance with:

ASTM D 3273-16 – “Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber”.

Sample	Week 1	Week 2	Week 3	Week 4
Acoustic Topcoat - AP335 Rep 1	10	10	10	10
Acoustic Topcoat - AP335 Rep 2	10	10	10	10
Acoustic Topcoat - AP335 Rep 3	10	10	10	10

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

Testing was carried out by an accredited American testing laboratory.

7 Coverage Rate

Acoustic plaster AP335 3- 3.5 kg/m²

Acoustic plaster AP 347 3.2-3.7 kg/m²

8 Storage

- Protect from frost at all times.
- Materials should be stored at 5°C-25°C and away from direct sunlight.
- Shelf life 12 months.

9 Packaging

24kg plastic containers. 20 containers to standard Euro pallet.

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