

NATURAL INNOVATIVE MATERIALS



XIROPIGADO 196 00 MANDRA ATTICA, GREECE T 210 5555276,F 210 5558912 INFO@PROLAT.GR, WWW.PROLAT.GR

> Revision No.v3 Revision Date: 04/2021

# **TECHNICAL DATA SHEET**

# LAVASTONE – RESIN BASED PEBBLE FLOOR

### PROPERTIES

**LavaStone** is a resin-based pebble embossed floor, suitable for public or private outdoor areas with light or heavy traffic. It is cement-based and reinforced with special resins that gives high mechanical strength with very strong adhesion to the substrate, and very good non-slip properties. It contains quartz and decorative pebbles with specially designed size distribution. The final thickness of the pebble floor can be up to 12 mm and is available in many selected colors.

#### FIELDS OF APPLICATION

**LavaStone** is ideal for application in areas such as gardens, yards, parking, and generally outdoor roads, while its application is recommended on bike pathways and in areas with gentle car traffic.

#### APPLICATION

#### Surface preparation

**LavaStone** can be applied to smooth concrete surfaces, old tile, pavement slabs, or any solid surface without oscillations and loose spots. Before applying **LavaStone** ensure that the substrate is clean of dust, oils, etc, so that adhesion is maximized. If there is a non-absorbent surface, such as tile, a quartz based adhesive primer should be applied before the application of LavaStone. Finally, cracks in the substrate, must be repaired either with epoxy resin or with elastic cementbased putty.

#### Application

**LavaStone** is prepared by mixing it with an electric hand mixer at low speed (~ 300 r.p.m.) or with another mechanical mixer or concrete barrel mixer. Pour the appropriate amount of water into the mixing vessel and while mixing slowly, add the powder to the water and mix well for at least 3 minutes. Add extra water during mixing until a

homogeneous, agglomerated mixture is formed. 25 kg of dry mortar require 3.5-4.0 It of water. Depending on the desired workability extra water can be added as it does not affect its final properties. Spread LavaStone in a layer of 15 mm thickness using a flat metal spatula. Due to the high durability of the floor, there must be expansion joints every 5-6 running meters. If necessary, the joints can be filled with a suitable sealant. LavaStone should not be applied over existing substrate joints. After at least 48 hours, or much later if desired, LavaStone can be sanded with a marble grinding machine without using water. A 24 grade 'diamond' or 'stone-kidney' is used with the grinding machine. For a smoother finish, it can also be sanded with a 36-inch 'stone-kidney', again without water. However, the best of all is to sand with a coarse diamond grinder and then a medium size one. Finally, apply with a roller or pistol one or two coats of LavaDrops Penetrate without dilution to waterproof the surface of Lavastone.

#### CONSUMPTION

LavaStone: 25 kg/1,5cm/m<sup>2</sup> LavaDrops Penetrate: 0.15 kg/m<sup>2</sup>

#### STORAGE

Store in frost-protected areas for at least 18 months from the date of production.

### RESTRICTIONS

Do not apply the product when the ambient temperature and / or the temperature of the substrate is below 5  $^{\circ}$ C or above 35  $^{\circ}$ C.

### SAFETY

If swallowed, seek medical advice immediately by pointing to the container or label.

PACKAGING

25kg bag.





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#### Revision v.7 Revision Date: 12/2020

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## **Technical Characteristics**

| Appearance                                 | Cement-based mortar, with quartz aggregates | Application temperature                                   | 5 °C to 35 °C                               |
|--|---|---|---|
| Color                                      | Embossed in various<br>shades               | Bulk dencity of dry<br>mortar (EN 1510-10)                | 1,84 gr/ml                                  |
| Water demand                               | 3.5-4.0lt of water for 25kg mortar          | Compressive strength,<br>28d (EN 1015-11)                 | 15.0 MPa                                    |
| Application thickness                      | 12 mm                                       | Adhesion strength<br>(EN 1015-12)                         | 2,20 Mpa                                    |
| Consumption                                | 20-25 kg/m <sup>2</sup>                     | Capillary water<br>absorption coefficient<br>(EN 1015-18) | w<0,01 kg/m <sup>2</sup> min <sup>0.5</sup> |
| Bulk density of fresh mortar (EN 1015-6)   | 1,96 gr/ml                                  | Pot life  | 4 hr  |
| Consistency of fresh<br>mortar (EN 1015-3) | 142 mm                                      | Walkable after  | 24hr  |