

## Declaration of Performance

DOP/0-16 Landfill/30-1-2021 (replaces version of 1-6-2020)

**0/16  
Landfill**

**The undersigned, representing  
LAVA MINING AND QUARRYING S.A.  
32, D. Solomou str., GR14123 - Lykovrissi Attica Greece  
Declares that**

**PUMICE (0/16mm Landfill), Lightweight aggregate for bound and unbound applications  
Conforms to the Annex ZA of the harmonized European Standard: EN 13055-2:2004  
CPR ANNEX V System 2+**

**The Notified Body Bureau Veritas Certification Denmark A/S, Oldenborggade 25-31 DK-7000 Fredericia, Tlf. 77 31 10 00, identified No. 0615, performed the initial inspection of the manufacturing plant and of factory production control and the continuous surveillance, assessment and evaluation of factory production control, and issued the certificate of constancy of conformity of the factory production control (0615-CPR-9984).**

Loose bulk density (wet) (Mg/m <sup>3</sup> )	0,780 (Min/Max:0,680/0,880)	EN 1097-3												
Apparent Particle density $\rho_{La}$ (Mg/m <sup>3</sup> ) Oven dry Particle density $\rho_{Lrd}$ (Mg/m <sup>3</sup> )	1.65±0.15 1.00±0.15	EN 1097-6:, annex C												
Grading (%)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Sieve (mm)</th> <th style="width: 25%;">Passing (%)</th> <th style="width: 25%;">Range (%)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">12.5</td> <td style="text-align: center;">98</td> <td style="text-align: center;">95-100</td> </tr> <tr> <td style="text-align: center;">8</td> <td style="text-align: center;">45</td> <td style="text-align: center;">35-55</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">20</td> <td style="text-align: center;">10-30</td> </tr> </tbody> </table>	Sieve (mm)	Passing (%)	Range (%)	12.5	98	95-100	8	45	35-55	4	20	10-30	EN 933-1 <sup>(3)</sup>
	Sieve (mm)	Passing (%)	Range (%)											
	12.5	98	95-100											
	8	45	35-55											
4	20	10-30												
Fines (%)	<10%	EN 933-1 <sup>(3)</sup>												
Water content	16-26%	EN 1097-5 (calc upon wet mass)												
Water absorption (%)	36±10%	EN 1097-6: annex C												
Bulk Crushing resistance (N/mm <sup>2</sup> )	NPD <sup>(1)</sup>	EN 13055-1, annex A												
Percentage of crushed particles (%)	NPD <sup>(2)</sup>	EN 933-5												
Resistance to disintegration (%)	NPD <sup>(2)</sup>	EN 13055-1:, annex B												
Freezing and thawing resistance (%)	max 3.7%	EN 13055-2 annex B												
Water Suction height	NPD <sup>(2)</sup>	EN 1097-10												
Compaction and load bearing capacity	NPD <sup>(2)</sup>	EN 13055-2, annex A												
Resistance to cyclic compressive loading	NPD <sup>(2)</sup>	EN 13286-7												
Resistance to thermal shock	NPD <sup>(2)</sup>	EN 1367-5												
Resistance to polishing	NPD <sup>(2)</sup>	EN 1097-8												
Resistance to wear by abrasion from studded tyres	NPD <sup>(2)</sup>	EN 1097-9												
Compatibility between LWA and bitumen	N/A <sup>(1)</sup>	EN 12697-11												
Water Soluble Chloride (%)	<0.050%	EN 1744-1:, clause 7												
Water soluble sulphate (%)	<0.01%	EN 1744-1:, clause 10												
Thermal conductivity	N/A <sup>(1)</sup>	EN 12664 or EN 12667												
Dangerous substances. In particular:														
Emission of radioactivity	Radiologically suitable for safe use	Radiation Protection 112, European Commission 1999												
Release of heavy metals	As <4ppm, Cd <0.4ppm, Cr <20 ppm, Cu <5ppm, Hg <0.05ppm, Pb <13ppm, Ni <6 ppm, Zn <20 ppm	In accordance with NEN 6950 (destruction in accordance with NEN 6961, measurement in accordance with NEN 6966); In house method (destruction in accordance with NEN 6961 and equivalent to NEN-EN 16174, measurement with ISO 22036 and in accordance with NEN-EN 16170)												
Release of polyaromatic carbons	Organic carbon is not present in pumice	ISO 10694												

<sup>(1)</sup>Not Applicable, <sup>(2)</sup> No Performance Determined, <sup>(3)</sup>: dry sieving

**The performance of the product identified above as PUMICE 0/16mm Landfill is in conformity with the declared values. The present Declaration of Performance is established under the full responsibility of LAVA SA.**

**Signed on behalf of the manufacturer**

**Date: 30/1/2021**

**Full Name: E. Christoforakis**

**Position: Manager**