

LMS-2 Lunar Mare Simulant | Fact Sheet

001-14-001-1223

Simulant Name: LMS-2 Mare Simulant
Simulant Type: General purpose
Reference Material: Average lunar maria
Uncompressed Bulk Density: 1.54 g/cm³
Median Particle Size: 160 μm
Particle Size Range: <0.04 μm – 2000 μm



Geotechnical Properties

Angle of Repose (10g): 33.3°
Angle of Repose (250g): 37.7°

Mineralogy

As mixed.

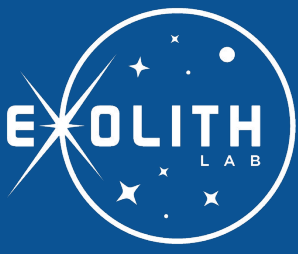
Component	Wt.%
Bronzite	32.8
*Glass-rich Basalt	32.0
Anorthosite	19.8
Olivine	11.1
Ilmenite	4.3

*Glass-rich basalt sourced from Merriam Crater. This is the same source as JSC-1 lunar simulant.

Bulk Chemistry

Relative abundances.
Measured by XRF.

Oxide	Wt.%
SiO₂	48.22
TiO₂	2.70
Al₂O₃	12.40
FeO	8.79
MnO	0.06
MgO	15.97
CaO	7.65
Na₂O	1.73
K₂O	0.42
P₂O₅	0.23
LOI	0.56
Total	98.87



Particle Size Distribution

Using a combination of laser and sieve analysis

