

Simulant Name: LHS-2 Highlands Simulant
Simulant Type: General purpose
Reference Material: Average lunar highlands
Uncompressed Bulk Density: 1.5g/cm³
Median Particle Size: 150µm
Particle Size Range: <0.04 µm – 2000 µm



Geotechnical Properties

Grain Density: 2.75 g/cm³
Void Ratio: 0.83
Porosity: 45.0%
¹**Angle of Repose (10g):** 47.5°
Angle of Repose (250g): 41.6°

Geotechnical Property Sources

¹[\(PDF\) LHS-2: A Novel Lunar Highlands Regolith Simulant for Exolith Lab's Regolith Bin \(researchgate.net\)](#)

Mineralogy

As mixed.

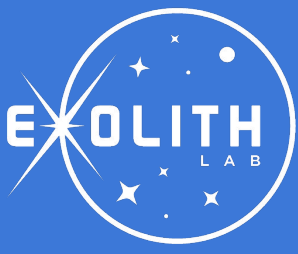
Component	Wt.%
Anorthosite	74.4
*Glass-rich Basalt	24.7
Ilmenite	0.4
Bronzite	0.3
Olivine	0.2
Total	100

*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	48.9
TiO₂	0.5
Al₂O₃	25.8
FeO	3.2
MnO	0.05
MgO	2.3
CaO	16.7
Na₂O	0.7
K₂O	0.4
P₂O₅	0.9
Total	99.5



Sieve Analysis

Following ASTM Standard E11 using Gilson SS-14D sieve shaker

