

# LHS-2E Lunar Highlands Simulant | Fact Sheet

001-13-001-1223

**Simulant Name:** Engineering Grade 2mm Lunar Highlands Simulant

**Simulant Type:** Engineering Grade

**Reference Material:** Average lunar highlands

**Uncompressed Bulk Density:** 1.4g/cm<sup>3</sup>

**Median Particle Size:** 68µm

**Particle Size Range:** <0.04 µm – 2000 µm



## Geotechnical Properties

**Angle of Repose (10g):** 45.8°

**Angle of Repose (250g):** 43.1°

**Cohesion:** 0.356 kPa

**Angle of Internal Friction:** 30.5°

## Mineralogy

As mixed.

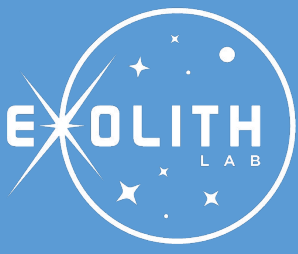
Component	Wt.%
Anorthosite	75.0
*Glass-rich Basalt	25.0

\*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.%
SiO <sub>2</sub>	47.10
TiO <sub>2</sub>	0.46
Al <sub>2</sub> O <sub>3</sub>	26.35
Fe <sub>2</sub> O <sub>3</sub>	3.44
MnO	0.05
MgO	1.28
CaO	17.47
Na <sub>2</sub> O	2.36
K <sub>2</sub> O	0.51
P <sub>2</sub> O <sub>5</sub>	0.96
<b>Total</b>	<b>100.00</b>



## Particle Size Distribution

Using a combination of laser and sieve analysis

