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Lunar Regolith Simulant Testbed

What is lunar regolith?

Lunar regolith is simply the scientific name for moon dirt. While actual lunar regolith is very scarce and unlike any naturally occurring substance here on Earth, simulants such as JSC-1A approximate many of the chemical and mechanical properties of lunar regolith. In large quantities, this simulant exhibits many of the unusual properties of lunar regolith observed during lunar surface missions.

Why a lunar regolith simulant testbed?

A testbed containing lunar regolith simulant serves many useful purposes. The testbed supports research and development of innovative systems, equipment and processes with high tech civil and commercial applications. For example, researchers can benefit from the ability to study the materials handling, excavation, transportation, compaction, dust exposure and mitigation and other processes.

The testbed measures 4 meters square and contains approximately 8 metric tons of JSC-1A and can be customized and reconfigured as required..

Who can use the testbed?

The testbed has been developed for the lunar exploration community, including but not limited to

- Competitors in lunar-focused design and innovation challenges
- NASA and other government researchers
- Private sector researchers and lunar hardware developers
- Academic researchers
- K-16 science and technology educators

Where is the testbed, and what does it cost to use it?

The Lunar Regolith Simulant Testbed is presently located in the heart of Silicon Valley at the NASA Research Park in Mountain View, California. Because the testbed can be customizable and made available to suit a wide variety of purposes, hourly and daily rates are negotiable.

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