



ETDP Dust QD's



Regolith & Simulant Applications, Quantities & Schedule

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Cryogenic Quick Disconnect (QD) Testing and Umbilicals



- QD's for Liquid Oxygen and other cryogenic consumables transfer will have cleanliness requirements where dust simulant properties will be critical.
- Regolith can ignite and cause a fire in liquid oxygen
- QD's will be used for:
 - EVA Umbilicals
 - Life Support Consumables
 - ISRU Products
 - Propellant Transfer
 - Altair lander fluid interfaces
 - Habitat connections
 - Docking Systems
 - Fuel Cell systems
 - Mobility platforms
 - Et.c.
- Testing, in vacuum about 2 years before PDR
- Dust Simulant in small quantities for component testing (75-100 kg)
- Regular Simulant for component testing (75-100 kg)
- Need to characterize flammability of real lunar regolith and related simulants