

Multi-Layer Insulation Facility

A bespoke service for the conceptual design, manufacture and integration of Multi-Layer Insulation (MLI) for complex geometries for space instruments, satellites and ground based test facilities.

RAL Space MLI Facility offers MLI to suit a range of applications, from atomic oxygen resistant materials for Low Earth Orbit applications, to MLI designed for cryogenic applications or to withstand high temperatures. The service includes:

- The flexibility to provide a tailored integration service to suit each customer's requirement, including to complete the integration onsite within the customer's facilities
- An accredited ISO9001 framework, with approved ISO9001 procedures for each stage of the work
- Support from thermal engineering and mechanical design teams to provide a tailored package of additional engineering support to suit each customer
- A dedicated 85m² ISO Class 7 temperature and humidity controlled cleanroom for MLI manufacture
- Access to twelve thermal vacuum chambers ranging from 0.5m to 5m diameter for vacuum bakeout and thermal testing of MLI blankets
- Four-stage hands off CFC free cleaning system for consistent controlled cleaning of space hardware
- Expertise and equipment to manufacture a range of taped or sewn blankets
- Devices and services instruments to make emissivity and solar reflectivity measurements to verify MLI material thermo-optical properties