Data Sheet

Universal Space Mesh

- USM-ATLAS32 -

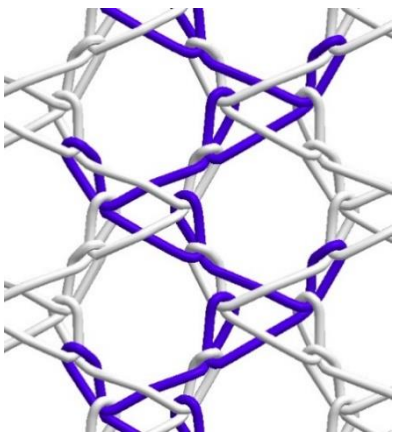
RF-reflective mesh „Made in Germany“ for deployable or rigid reflector antennas for space applications.

Antenna Application Area
Earth Observation Missions
Telecommunication Missions
Science Missions

5 m large deployable reflector surface with HPtex-USM-mesh under RF testing at Airbus Germany

Key Characteristics	
Applicable Frequencies	C-band up to Ku-band
Needle Fineness	E32 (needles per inch)
Mass	< 40 g/m²
RF Performance / Reflection Loss	< 0.1 dB 2-4 GHz; < 0.2 dB 8-12 GHz
Material	Gold Coated Molybdenum (other materials available on request)
Knitting Patterns	ATLAS-ATLAS
Temperature Range	-250 °C up to +300 °C
Mesh Width	Single line: up to 4.5 m (width will be adjusted to request) Multi-line: up to 9.9 m (3 lines of 3.3 m sewed together) Ultra-width: on request.
Mesh Length	max. 15 m recommended (length will be produced as requested)
Cleanliness Class	ISO 8 (as baseline, higher classes on request)

Optional Services
Mechanical tests on samples of the produced lot
RF Tests on samples of the produced lot
Automated sewing of mesh-stripes for large widths (e.g. 10 m)
Delivery of cost effective training mesh out of steel



ATLAS-ATLAS Pattern

Januar 2025

High Performance Textiles GmbH
Kirchenlamitzer Strasse 115
95213 Münchberg
Germany
+49 (0)89 4520 576-80
contact@hptex.de
www.hptex.de

Homepage