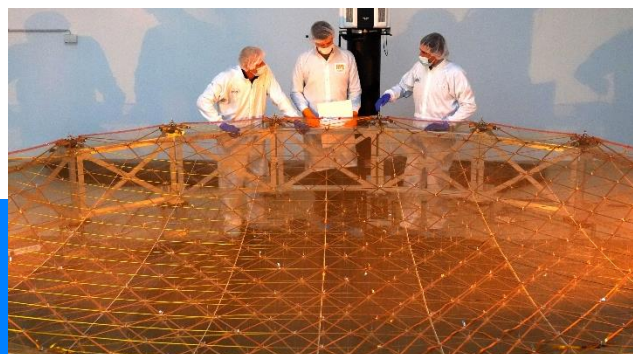Data Sheet
Universal Space Mesh
- USM-RIPSTOP32 -

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 mesh/network with HPtex-USM-mesh under surface accuracy testing

Key Characteristics

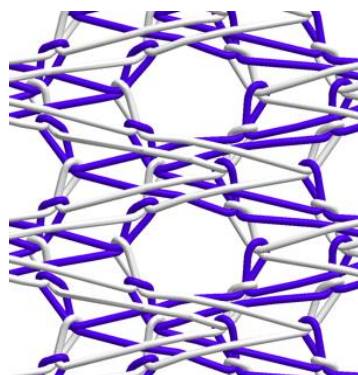|	
Applicable Frequencies	C-band up to Ku-band
Needle Fineness	E32 (needles per inch)
Mass	< 45 g/m²
RF Performance / Reflection Loss	< 0.05 dB at 1-8 GHz ; < 0.08 GHz at 8-12 Ghz
Material	Gold Coated Molybdenum (other materials available on request)
Knitting Patterns	ATLAS
Temperature Range	-250 °C 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 Pattern

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