

Universal Space Mesh

- USM-TUCH32 -



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 HPtexas-USM-mesh under RF testing at Airbus Germany

Key Characteristics

Applicable Frequencies	KU up to KA Band - Optimized for KA-Band
Needle Fineness	E32 (needles per inch)
Mass	< 50 g/m ²
RF Performance / Reflection Loss	< 0.2 dB 36,5GHz
Material	Gold Coated Molybdenum (other materials available on request)
Knitting Patterns	TUCH
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

