

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 | e.g. L- / X- / Ku- / Ka-band / (V-band available in 2024) |
| Needle Fineness | E32 (needles per inch) |
| Mass | < 50 g/m ² |
| RF Performance / Reflection Loss | < 0.05 dB (depending on frequency) |
| 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 10.2 m (3 lines of 3.4 m each sewed together, sewing service: see option below) Ultra-width: on request. |
| Mesh Length | max. 20 m recommended (length will be produced as requested) |
| Cleanliness Class | ISO 8 (as baseline, higher classes on request) |

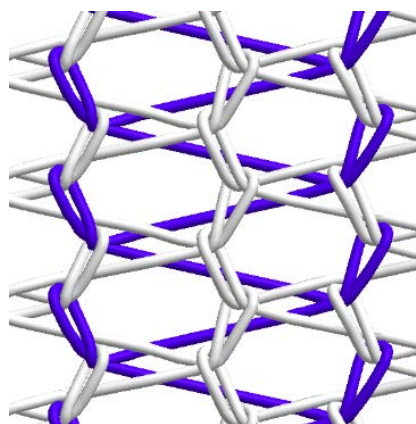
Optional Services

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



TUCH Pattern

