

# Universal Space Mesh

## - USM-ATLAS32 -



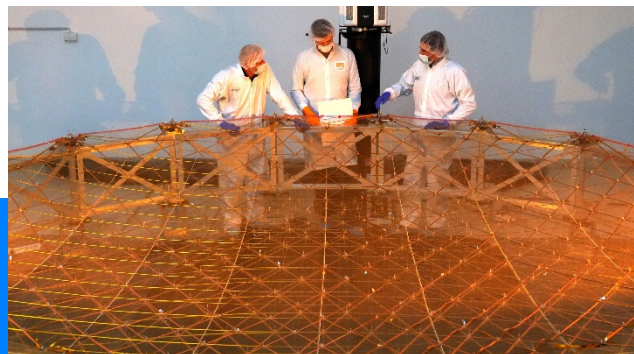
**RF-reflective mesh „Made in Germany“ for deployable or rigid reflector antennas for space applications.**

### Antenna Application Area

Earth Observation Missions

Telecommunication Missions

Science Missions



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

### Key Characteristics

|                                  |                                                                                                                                                                                              |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Applicable Frequencies           | up to L-band / X-band                                                                                                                                                                        |
| Needle Fineness                  | E32 (needles per inch)                                                                                                                                                                       |
| Mass                             | < 40 g/m <sup>2</sup>                                                                                                                                                                        |
| 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)<br>Multi-line: up to 10.2 m (3 lines of 3.4 m each sewed together, sewing service: see option below)<br>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)                                                                                                                                               |

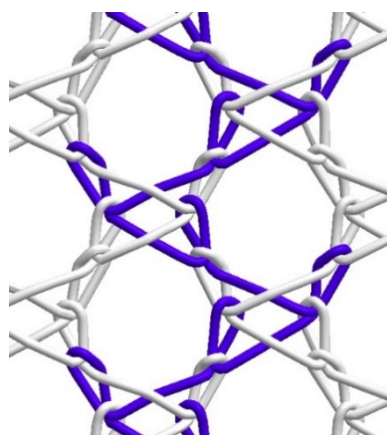
### Optional Services

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



*ATLAS-ATLAS Pattern*

