Satellites Tranversal competencies MERSEN BOOSTEC



MERSEN BOOSTEC's activities are based on the manufacture of sintered silicon carbide parts. This material called Boostec<sup>®</sup> SiC brings original solutions to markets as diverse as space, astronomy, laser processes, semiconductor/optomechanical OEMs and chemical industries.

## **COMPETENCIES & CAPABILITIES**

MERSEN BOOSTEC provides SiC mirrors, SiC stable structures and also focal plane hardware for telescopes to be used in space or on ground. Thanks to the combination of very high specific stiffness and high thermal stability, Boostec<sup>®</sup> SiC provides the very high thermoelastic stability required for optical instruments on board satellites.

MERSEN BOOSTEC offers assistance to its customers for the design of their SiC parts to ensure better feasibility, mitigate risks and also reduce costs and lead time.

MERSEN BOOSTEC has developed over the years a unique expertise and capacity to manufacture space-quality SiC parts up to Ø 3.50m.



Euclid full-SiC telescope – Image courtesy of Airbus D&S

# **MERSEN BOOSTEC**

### **PRODUCTS & SERVICES**

SiC Products:

- Mirrors including optional SiC CVD coating on the optical face, up to Ø 3.50 m,
- Highly stable structure elements; 4-meters-class structure assemblies obtained by brazing, gluing and/or bolting,
- Detector supports and other focal plane hardware,
- Full-SiC telescopes.

Services:

- Assistance to the design,
- Quality in conformance with ESA ECSSs,
- Mechanical proof-tests.

#### **MAJOR SPACE PROJECTS & REFERENCES**

Sciences of the Universe:

ROSETTA Osiris Narrow Angle Camera, HERSCHEL telescope, GAIA Payload Module, NIRSpec JWST, EUCLID (main teslecope, VIS and NISP instruments)

Earth Observation:

Space Lidars (Aladin AEOLUS, Atlid EARTH CARE), METOP-SG-A (IASI-NG, METimage derotator), MICROCARB, Multispectral Imagery (SENTINEL-2, PLEIADES and CSO focal planes), NAOMI telescopes developed for Airbus export and for AIRBUS DS Intelligence use.

### **POINT OF CONTACT**

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