



I-MAT

SMART STRUCTURES
WITH INTEGRATED FIBER
SENSING

Next-gen structural materials for **aviation, space, shipbuilding, automotive and civil engineering** applications allowing exact and precise monitoring of various parameters along the entire structure thanks to the integrated fiber

FEATURES

Fiber sensor embeddable within the composite

Negligible impact on the mechanical properties of the composite materials

Ultra-high-density of sensing points (down to mm)

Payload and workload reduction,

Real-time monitoring, measuring strain, temperature or vibrations

Enables predictive maintenance

Integration available for metal and concrete constructions too



SPECS

- Strain detection accuracy:
up to $4 \mu\epsilon$
- Fiber Operating temperature:
-200 to 700°C
- Spatial resolution: 1 cm
 - Repetition: 1 s
- Sensing Range:
up to 100 m



APPLICATIONS

- Aviation & space – Structural Health Monitoring in composite parts
- Cost effective monitoring of composite elements in aviation planes
- Aviation & marine – on-board monitoring of structural parameters
- Transport - strain and vibration monitoring in trailers and railcars
- Construction and civil engineering – vibration, strain and temperature distribution monitoring of foundations and buildings

