



I-MAT

SMART STRUCTURES
WITH INTEGRATED
FIBER SENSING

Next-gen composites for aviation, space, shipbuilding, automotive and civil engineering applications allowing exact and precise monitoring of various parameters along the entire structure thanks to fiber element integrated in composite (or other structural material).

FEATURES

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- Fiber sensor embeddable within the composite
- Negligible impact on mechanical parameters of composite materials
- High-density of sensing points (down to mm)
- Payload and workload reduction
- Real-time monitoring, measuring strain, temperature or vibrations
- Enables predictive maintenance
- Fiber element integration available for metal and concrete constructions too.



SPECS*

composite structure

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

Contact us for detailed information and/or specs adjustment.



APPLICATIONS

- Aviation & space – structural usage monitoring in composite constructions
- Cost effective wear monitoring of composite elements
 - 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

