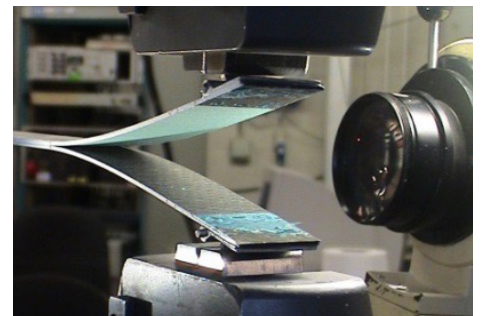


R&D Mechanical Testing

- Efficient in Customized Testing
- Experimented team
- On-schedule delivery
- Wide capacity in international standards testing
- High quality engineering reports



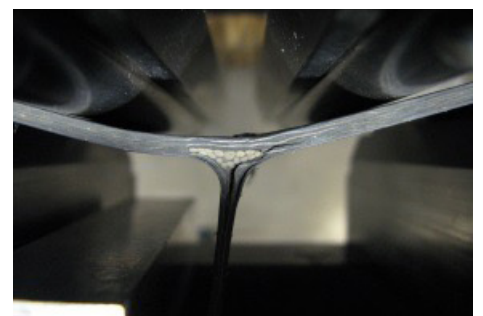
Specimens manufacturing



Standard testing (G_{IC})



Customized test setup



Composite testing

Mechanical Testing Services,
from International Standards
to specific customer challenges

DIFFERENTIATORS

- Customized test setups to care customer challenges
- Over 100 International Standards covered in Transport engineering
- Proactive and efficient team to meet customer schedules
- Over 40 years experience in hi-tech innovative materials testing (composites, alloys...)
- Engineering added value reports in line with clients expectations

From International Standards to specific customer challenges Testing, high experience in testing Composites, manufacturing processes, assembly technologies

SERVICE IDENTIFICATION

LOCATION :

Gosselies – Belgium

EXAMPLES :

- Design Allowables for Airbus A350 innovative hybrid slats (CFRP-Al).
- Complete characterization of laminates of last generation Composite Flaps.
- Fatigue validation of car spring tensioner.
- Development tests on 3-D composite preforms for future Space structures.

CUSTOMERS

Airbus, Airbus Defense and Space (Astrium), Bombardier, Dassault Aviation, Embraer, Pilatus, ESA, Audi, ...

STATE-OF-THE-ART MAIN FACILITIES

- R&D laboratory : 250 m² [2700 ft²]
- 8 Test machines, up to : 500 kN [112000 lb]
- Fatigue testing up to 50 Hz
- Impact test bench, up to : 130 J [95 lb.ft]
- Test conditions : -150°C to +300°C
- Moisture conditioning : 600 L
- Metallography : 100 m² [1000 ft²]

QUALIFICATION

- EN 9100
- ISO 14001

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VALUE STREAM MAPPING

- 1 Sharp analysis of customer requirements
- 2 Test setup conception
- 3 Test specimens manufacturing: materials supplying, machining, assembly, instrumentation
- 4 Conformity validation: test setup, specimens, equipment, procedures
- 5 Testing in simulated environment
- 6 Results analysis : calculus of properties, failure modes description
- 7 Final reporting, from raw data to design allowable

GLOBAL FOOTPRINT

SONACA MONTREAL

- Wing structures
- Manpower: 310

SONACA GROUP HEADQUARTERS

- Engineering - R&D Center
- Elementary parts & Final assy.
- Manpower: 1830



SONACA TRANSYLVANIA

- Opening 2016

SINELSON

- Leading-edge final assy
- Manpower: 50

SOBRAER

- Engineering-Final assy
- Manpower: 280

SOPEÇAERO

- Sheet metal parts
- Manpower: 80

PESOLA

- Machined parts
- Manpower: 50