

### **Technical Definition**

# G1c Composite Carbon Fiber Composite

## Instructions for participating laboratories

Please read carefully these instructions **BEFORE** starting any testing activities.

- 1. Five specimens (250 x 25 x 3,0 mm) are supplied to each participant. 5 results have to be submitted. In case of exclusion of a test specimen result by yourself, you shall provide a short root cause analysis.
- 2. The specimens have to be dried during 48 hours (0/+10) at 70°C (+/- 3) and tested within the next 8 hours after the drying.
- 3. The conformity of the specimens to the requirements of AITM 1-0053, issue 06 shall be verified before testing.
- 4. Tests shall be performed according to AITM 1-0053, issue 06

The tests shall be performed respecting the following conditions:

- One operator only
- One testing machine only
- Tests performed in sequence
- 5. Prerequisite for starting the tests are:
  - an Airbus qualification for this test
  - For labs which are not qualified yet, the rules of Technical Qualification of Mechanical Test Methods apply. The PTP kit may be used for the required comparison tests.
- 6. Each participant is required to report the following parameters:

Characteristic	Unit	Significant digits	Mandatory / Not mandatory
Specimen dimensions	mm	XX,XX	Mandatory
G1c - Fracture toughness energy	J/m²	XXX,X	Mandatory
Ai - Pre-crack length	mm	XX,X	Mandatory
A - Crack length	mm	XX,X	Mandatory
Main failure mode	N/A	N/A	Mandatory
Percentage of failure mode 2	%	XX	Mandatory
Validity of the tests	N/A	N/A	Mandatory

- 7. Testing shall start as soon as test specimens are received. All participant laboratories must supply results by August 31<sup>st</sup>, 2017.
- 8. Instructions for submission of results are detailed on the website:

#### https://ptpscheme.com/

To ensure confidential treatment of results in the final report, each participant lab will be provided with a unique identity number at the moment of his registration to the program.



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10. The tested specimens do not need to be sent back to PTP.

#### Note:

The following data shall be provided directly to AIRBUS on demand:

- A standard complete test report
- Pictures of failure mode (samples shall be opened completely)
- Result table including all dimensions and results as required in AITM 1-0053
- Load-displacement curves
- Pictures of current test set-up, including tabs and clamping