Technical Definition

Compression 2850 B ET test
Carbon Fiber Composite

You shall respect the HSE policy of your laboratory for each performed test.

Instructions to participant laboratories

Please read carefully these instructions BEFORE starting the tests.

1. Ten specimens (80 x 12,5 x 2,0 mm) are supplied to each participant (5 for compression strength and 5 for compression modulus) – 5 + 5 results must be provided.
   If one result is missing, your test will be considered as an outlier. A RCA shall be completed.

2. The specimens have to be dried during 48 hours (0/+10) at 70°C (+/- 3), kept in controlled conditions and tested within the next 8 hours after the drying.

3. All tests have to be performed at **80 °C** in accordance with the requirements of **EN 2850 (2017) or ASTM D695-15**.
   If a tool type B as described in the EN 2850 is used, then apply a torque of 0,5 N.m.
   If necessary, specimen length can be physically adjusted (has to be indicated in the results form).
   Stabilization time before testing: **3 min**

   The tests shall be performed respecting the following conditions:
   - One operator only
   - One testing machine only
   - Tests performed in sequence

4. The following information need to be reported:

Characteristic	**Unit**	**Significant digits**	**Mandatory / Not mandatory**	**Evaluated** Yes/no
Specimen dimensions both width and thickness measured in at least 3 positions as stated in the reference standard	mm	X,XX	Mandatory	No
Compression strength based on theoretical thickness (cross section area shall be calculated by multiplying the theoretical thickness x the actual measured width) *	MPa	XXX	Mandatory	**Yes**
Compression strength based on real thickness (cross section area shall be calculated by multiplying the actual thickness x the actual measured width) *	MPa	XXX	Mandatory	**Yes**
Compression load at failure *	kN	XX,X	Mandatory	No
Secant compression modulus – Strain method (based on nominal thickness)**	GPa	XXX,X	At least one method has to be used	**Yes**
Secant compression modulus – Load method (based on nominal thickness) **	GPa	XXX,X		**Yes**
Compression failure mode	N/A	N/A	Mandatory	No
Validity of the failure	N/A	N/A	Mandatory	No
Upload of the official report	N/A	N/A	Mandatory	No

Nominal thickness : 2,024 mm

*: obtained from Compression strength specimens
**: obtained from Compression modulus specimens

All evaluated characteristics will be analysed according to the algorithm A and S (ISO 13528 – 2015) and evaluated using z-score.

5. Testing shall start **as soon as test specimens are received**. Please contact the following e-mail address for any technical or administrative query.

Shipment date from	**January 2022**
Submission date :	**May 1st, 2022**
Technical and administrative support :	info@ptpscheme.com

6. Instructions for submission of results are detailed on the website:

https://ptpscheme.com/

7. To ensure the confidential treatment of your results in the final report, you will be allocated a unique identity number when you register for the program.

8. Collusion and falsification of your PTP results are totally forbidden. In case of identification or suspicion of collusion or falsification, the laboratory will be excluded from the program and the sponsors will be immediately informed. The sponsors could ask you proofs of your records and analyses, so be sure to conserve data, curves and specimens.

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

APPENDIX : Instructions for IRR participation

The Internal Round Robin participation (IRR) is **optional** and **independent** from your PTP participation.
Confidentiality : The IRR results and reports are confidential and only accessible by your laboratory. They are not shared with the scheme sponsors or any other accreditation or certification bodies.

The extra samples shall be tested according to the following table:

	Operator 1	**Operator 2**	**Operator 3**	**Operator 4**	**Operator X**
Test machine 1	PTP kit (5 + 5 samples)	3 + 3 samples	3 + 3 samples	3 + 3 samples	3 + 3 samples
Test machine 2	3 + 3 samples				
Test machine 3	3 + 3 samples				
Test machine Y	3 + 3 samples				

Operator 1 (OP1) is to be the most experienced operator currently conducting tests on a regular basis and shall perform tests on all machines (TM1, TM2, TM3…)
Test Machine 1 (TM 1) is to be the most utilised machine for this test in your laboratory and shall be tested by all operators (OP1, OP2, OP3…)

Example: A laboratory has 2 operators and 3 test machines. They receive a PTP kit and 9 + 9 extra specimens.
Operator 1 shall test the PTP kit on TM1, 3 + 3 specimens on TM2 and 3 + 3 specimens on TM3.
Operator 2 shall test 3 + 3 specimens on TM1.

The IRR results have to be submitted on a separate results form available on the PTP website.
The identification of operators and test machines you provide will appear on the IRR final report. These identifications will not be seen by other laboratories.

The IRR results will be classified against the acceptance classes of the kit Compression 2850 B ET-2022.

Reminder: Laboratories are not permitted to switch specimens between the PTP kit and IRR samples. The traceability of the samples will be checked during the evaluation. Laboratories found to have switched samples will invalidate their PTP participation.

REVISION HISTORY

Issue Date	Issue N°	Changes
23/11/2021	1	Document creation