ptp.

Kit Bearing PTP 2020

Technical Definition

Bearing 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. Five specimens (150 x 45 x 4,4 mm – hole diameter 6,35 mm) are supplied to each participant – 5 results must be provided.
   If one result is missing, your test will be considered as an outlier. A RCA shall be completed.

   Prerequisite for starting the tests :
   • 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.

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 room temperature in accordance with the requirements of **AITM 1-0009, issue 04**.

   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 thickness	mm	X,XX	Mandatory	No
Specimen width	mm	X,XX	Mandatory	No
Bearing load at initial, ultimate and offset failures (0,5%d, 2%d, 4%d, 6%d and 10%d)	N	XXX	Mandatory	No
Bearing strength at initial, ultimate and offset failures (0,5%d, 2%d, 4%d, 6%d and 10%d)	MPa	XXX	Mandatory	**Yes (6%d and ultimate)**
Bolts and nuts used for the testing	N/A	N/A	Mandatory	No
Upload of the official report	N/A	N/A	Mandatory	No

Note : Calculations shall be based on nominal thickness : 4,416 mm

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

5. The following requirements regarding the results have to be met:
   • Load-displacement curve without any discontinuities
   • No slipping of specimen in grips is allowed.

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

Submission date :	**August 1st, 2020**
Technical and administrative support :	info@ptpscheme.com

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

https://ptpscheme.com/

8. 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.

9. 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.

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

Note:
The following data shall be provided on demand:

- Pictures of failure mode (front and side view)
- Picture of whole specimen after test
- Result table including all dimensions and results as required in AITM 1-0009
- Load-displacement curves
- Bearing stress versus hole deformation curve for each specimen
- Pictures of current test set-up

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 samples)	3 samples	3 samples	3 samples	3 samples
Test machine 2	3 samples				
Test machine 3	3 samples				
Test machine Y	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 extra specimens.
Operator 1 shall test the PTP kit on TM1, 3 specimens on TM2 and 3 specimens on TM3.
Operator 2 shall test 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 Bearing-2020.

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
02/03/2020	1	Document creation
11/05/2020	2	Modification of the results submission deadline
09/07/2020	3	Correction of the nominal hole diameter