

JIS

JAPANESE INDUSTRIAL STANDARD

**Testing methods for flexural creep
of carbon fibre reinforced plastics**

JIS K 7088^{—1996}

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Testing methods for flexural creep of
carbon fibre reinforced plastics

K 7088-1996

1. Scope This Japanese Industrial Standard specifies general creep testing method (hereafter referred to as "creep test") of carbon fibre reinforced plastics (hereafter referred to as "CFRP") using 3 point flexural method (method A) and 4 point flexural method (method B), that is, the measurement of flexural creep deflection of a test piece and/or of time elapsed from test starting to the fracture of the test piece or to the specified flexural creep distortion, with applying a specified flexural load (hereafter referred to as "test load") under specified test atmosphere for long time.

Remarks 1. The test atmosphere shall be two types of the standard test atmosphere specified in (1) of 3.2 and 50 ± 2 °C.

2. When comparing the data of flexural creep between materials, generally, carry out using the test piece with the same shape and the same method (method A or method B) under the same test atmosphere.

3. The standards cited in this Standard are listed as follows.

JIS B 7502 Micrometer callipers

JIS B 7507 Vernier, dial and digital callipers

JIS K 6900 Plastics – Vocabulary

JIS K 7010 Vocabulary for fibre reinforced plastic

JIS K 7072 Preparation of carbon fibre reinforced plastic panels for test purpose

JIS K 7074 Testing methods for flexural properties of carbon fiber reinforced plastics

JIS K 7100 Standard atmospheres for conditioning and testing of plastics

JIS Z 8401 Rules for rounding off of numerical values

2. Definitions The definitions of terms mainly used in this Standard shall be as follows except those defined in JIS K 6900 and JIS K 7010.

(1) flexural creep stress The stress on the surface of a test piece at its central position between supporting points.

(2) indenter A jig by which load is applied to a test piece.

(3) flexural creep deflection The distance by which the central position between supporting points of upper or lower surface of a test piece is shifted from its original position when arbitrarily specified time has elapsed after test load was applied to a test piece.

(4) flexural creep distortion The distortion appeared on the place worked by flexural creep stress when an arbitrarily specified time has elapsed after test load was applied to a test piece.