

JIS

JAPANESE INDUSTRIAL STANDARD

**Testing method for compression
after impact properties of carbon fibre
reinforced plastics**

JIS K 7089^{—1996}

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**In the event of any doubt arising,
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Testing method for compression
after impact properties
of carbon fibre reinforced plastics

K 7089-1996

1. Scope This Japanese Industrial Standard specifies the testing method for determining the compression characteristics after impact of the carbon fibre reinforced plastics (hereafter referred to as "CFRP") which, being pseudo-isotropic, has been reinforced by orienting continuous carbon fibre having elastic modulus of 200 GPa or more.

Remarks 1. This testing method shall be applied only for the CFRP laminated products manufactured by laminating mainly prepreg or the similar laminated plate, and not for other moulding products.

2. This testing method can be used to obtain the data of material characteristics for preparing material specifications, evaluations, researching development, and data base.

3. This testing method specifies limited thickness of plate and laminating method, and in case of other thickness of plate and laminating method than this, it shall follow the agreement between the parties concerned with delivery.

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

JIS B 7502 Micrometer callipers

JIS B 7507 Vernier, dial and digital callipers

JIS B 7733 Compression testing machines

JIS B 7756 Impact testing machines for plastic materials –
Instrumentation

JIS K 6900 Plastics – Vocabulary

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

JIS K 7075 Testing methods for carbon fiber content and void
content of carbon fiber reinforced plastics

JIS K 7090 Testing method for ultrasonic pulse echo technique
of carbon fibre reinforced plastic panels

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.

- (1) compression test after impact Give specified impact load centrally on laminated plate of composite material which has been reinforced by laminating with reinforcing material such as fibre or fabrics, apply compressive load to the surface of the laminated plate, and measure such as compressive strength after impact, compressive elastic modulus after impact, and the maximum compressive distortion after impact.