
**Fine ceramics (advanced ceramics,
advanced technical ceramics) —
Determination of the interlaminar shear
strength of continuous-fibre-reinforced
composites at ambient temperature by
the compression of double-notched test
pieces and by the losipescu test**

*Céramiques techniques — Détermination de la résistance au
cisaillement interlaminaire des composites renforcés de fibres connues
à température ambiante par compression d'éprouvettes doublement
entaillées et par l'essai de losipescu*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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Fine ceramics (advanced ceramics, advanced technical ceramics) — Determination of the interlaminar shear strength of continuous-fibre-reinforced composites at ambient temperature by the compression of double-notched test pieces and by the losipescu test

1 Scope

This International Standard specifies a method for the determination of interlaminar shear strength of continuous-fibre-reinforced ceramic composites at ambient temperature, by the compression of a double-notched test piece or by the losipescu test. Methods for test piece fabrication, testing modes and rates (load rate or displacement rate), data collection, and reporting procedures are addressed.

This International Standard applies primarily to advanced ceramic or glass-matrix composites with continuous-fibre reinforcement having uni-directional (1-D) or bi-directional (2-D) fibre architecture. This test method does not address composites with (3-D) fibre architecture or discontinuous-fibre-reinforced, whisker-reinforced or particulate-reinforced ceramics.

NOTE 1 Values expressed in this International Standard are in accordance with the International System of Units (SI).

NOTE 2 This International Standard is based on ASTM C 292.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 3611, *Micrometer callipers for external measurement*

ISO 7500-1, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system*

ASTM C1292, *Standard Test Method for Shear Strength of Continuous Fiber-Reinforced Advanced Ceramics at Ambient Temperatures*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

fine ceramic (advanced ceramic, advanced technical ceramic)

highly engineered, high-performance predominately non-metallic, inorganic, ceramic material having specific functional attributes