
Aeronavtika - Polietereeterketon s 55 % neprekinjenih steklenih vlaken (PEEK-GF55) - Zaloga materiala - Specifikacija materialov

Aerospace series - Polyetheretherketone with 55 % continuous glass fibre by volume (PEEK-GF55) - Stock shape material - Material specification

Luft- und Raumfahrt - Polyetheretherketon mit 55 Volumen % (PEEK-GF55) endlos Glasfaser - Halbfabrikat - Materialspezifikation

Série aérospatiale - Polyétheréthercétone avec 55 % de fibre de verre continue par volume (PEEK-GF55) - Demi-produit - Spécification de matériau

Ta slovenski standard je istoveten z: EN 4718:2022

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ICS:

49.025.40 Guma in polimerni materiali Rubber and plastics

SIST EN 4718:2022**en,fr,de**

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EUROPEAN STANDARD

EN 4718

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

Aerospace series - Polyetheretherketone with 55 % continuous glass fibre by volume (PEEK-GF55) - Stock shape material - Material specification

Série aérospatiale - Polyétheréthercétone avec 55 % de
fibre de verre continue par volume (PEEK-GF55) -
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Luft- und Raumfahrt - Polyetheretherketon mit 55
Volumen % (PEEK-GF55) endlos Glasfaser -
Halbfabrikat - Materialspezifikation

This European Standard was approved by CEN on 25 July 2021.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 4718:2022) has been prepared by the Aerospace and Defence Industries Association of Europe — Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this document has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2022, and conflicting national standards shall be withdrawn at the latest by September 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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EN 4718:2022 (E)

1 Scope

This document specifies the requirements of a thermoplastic composite stock shape material (e.g. tape, rod etc.) consisting of polyetheretherketone with 55 % continuous glass fibres by volume (PEEK-GF55) for aerospace applications, which is presupposed to be used in a further thermal moulding process for forming parts described in EN 4714 ¹⁾.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

EN 2825, *Aerospace series — Burning behaviour of non metallic materials under the influence of radiating heat and flames — Determination of smoke density*

EN 2826, *Aerospace series — Burning behaviour of non metallic materials under the influence of radiating heat and flames — Determination of gas components in the smoke*

EN 3844-1, *Aerospace series — Flammability of non-metallic materials — Part 1: Small burner test, vertical — Determination of the vertical flame propagation*

EN 4714, *Aerospace series — Screws, bolts and nuts of continuous fibre reinforced PAEK (Polyaryletherketone) composite material — Technical specification* ¹⁾

ISO 75-3, *Plastics — Determination of temperature of deflection under load — Part 3: High-strength thermosetting laminates and long-fibre-reinforced plastics* ²⁾

ISO 175, *Plastics — Methods of test for the determination of the effects of immersion in liquid chemicals* ²⁾

ISO 291, *Plastics — Standard atmospheres for conditioning and testing* ²⁾

ISO 1172, *Textile-glass-reinforced plastics — Prepregs, moulding compounds and laminates — Determination of the textile-glass and mineral-filler content — Calcination methods* ²⁾

ISO 1183-1, *Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pycnometer method and titration method* ²⁾

ISO 1817, *Rubber, vulcanized or thermoplastic — Determination of the effect of liquids* ²⁾

ISO 3597-2, *Textile-glass-reinforced plastics — Determination of mechanical properties on rods made of roving-reinforced resin — Part 2: Determination of flexural strength* ²⁾

ISO 11357-3, *Plastics — Differential scanning calorimetry (DSC) — Part 3: Determination of temperature and enthalpy of melting and crystallization* ²⁾

ISO 14125, *Fibre-reinforced plastic composites — Determination of flexural properties* ²⁾

ASTM D2343-17, *Standard Test Method for Tensile Properties of Glass Fiber Strands, Yarns, and Rovings Used in Reinforced Plastics* ³⁾

¹⁾ In preparation at the date of publication of this document

²⁾ Published by: ISO International Organization for Standardization <http://www.iso.ch/>.

³⁾ Published by: ASTM International (US) American Society for Testing and Materials, <https://www.astm.org/>.

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

4 Requirements

See Table 1.

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