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**Z vlakni ojačeni kompozitni polimerni materiali - Metoda strižnega preskusa z uporabo strižnega okvira za ugotavljanje odziva na ravninsko strižno/natezno obremenitev in strižnega modula (ISO 20337:2018)**

Fibre-reinforced plastic composites - Shear test method using a shear frame for the determination of the in-plane shear stress/shear strain response and shear modulus (ISO 20337:2018)

Faserverstärkte Kunststoffe - Schubversuch mittels Schubrahmen zur Ermittlung der Schubspannungs-/Schubverformungskurve und des Schubmoduls in der Lagenebene (ISO 20337:2018)

Composites plastiques renforcés de fibres - Méthode d'essai de cisaillement à l'aide d'un châssis de cisaillement pour la détermination de la contrainte de cisaillement /déformation au cisaillement dans le plan et du module de cisaillement (ISO 20337:2018)

**Ta slovenski standard je istoveten z: EN ISO 20337:2019**

**ICS:**

83.120 Ojačani polimeri Reinforced plastics

**SIST EN ISO 20337:2019 en,fr,de**

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EUROPEAN STANDARD

EN ISO 20337

NORME EUROPÉENNE

EUROPÄISCHE NORM

October 2019

ICS 83.120

English Version

Fibre-reinforced plastic composites - Shear test method  
using a shear frame for the determination of the in-plane  
shear stress/shear strain response and shear modulus  
(ISO 20337:2018)

Composites plastiques renforcés de fibres - Méthode  
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Schubrahmen zur Ermittlung der Schubspannungs-  
/Schubverformungskurve und des Schubmoduls in der  
Lagenebene (ISO 20337:2018)

This European Standard was approved by CEN on 23 September 2019.

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## European foreword

The text of ISO 20337:2018 has been prepared by Technical Committee 61 "Plastics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 20337:2019 by Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by NBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2020, and conflicting national standards shall be withdrawn at the latest by April 2020.

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**Fibre-reinforced plastic composites —  
Shear test method using a shear frame  
for the determination of the in-plane  
shear stress/shear strain response  
and shear modulus**

*Composites plastiques renforcés de fibres — Méthode d'essai  
de cisaillement à l'aide d'un châssis de cisaillement pour la  
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**ISO 20337:2018(E)****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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 13, *Composites and reinforcement fibres*. [SIST EN ISO 20337:2019](https://standards.itech.ai/catalog/standards/sist/87591009-b941-4d09-8059-ef53221d4576/iso-20337-2018)

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## Introduction

The test method described in this document uses a shear frame fixture in order to introduce a pure shear loading throughout the free area of the test specimens. The edges of the test specimens are uniformly clamped during the test procedure avoiding fibre rotation and load re-distribution effects. This allows for the ultimate shear strength of high shear-elongation materials to be obtained even at shear strains higher than 5 % which is a limitation when using ISO 14129 or other standards regarding in-plane shear test methods for fibre reinforced plastic composites.

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