



SLOVENSKI STANDARD
SIST EN IEC 62788-6-2:2020

01-julij-2020

Merilni postopki za materiale, uporabljene v fotonapetostnih modulih - 6-2. del:
Splošni preskusi - Preskušanje pronicanja vlage pri polimernih materialih

Measurement procedures for materials used in photovoltaic modules - Part 6-2: General tests - Moisture permeation testing with polymeric materials

Messverfahren für Werkstoffe, die in Photovoltaik-Modulen verwendet werden - Teil 6-2: Allgemeine Prüfungen - Permeationsprüfung mit polymeren Materialien

Procédures de mesure des matériaux utilisés dans les modules photovoltaïques - Partie 6-2: Essais génériques - Essais de perméation à l'humidité des matériaux polymères

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Ta slovenski standard je istoveten z: EN IEC 62788-6-2:2020

ICS:

27.160	Sončna energija	Solar energy engineering
83.080.01	Polimerni materiali na splošno	Plastics in general

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EUROPEAN STANDARD

EN IEC 62788-6-2

NORME EUROPÉENNE

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May 2020

ICS 27.160

English Version

Measurement procedures for materials used in photovoltaic
modules - Part 6-2: General tests - Moisture permeation testing
of polymeric materials
(IEC 62788-6-2:2020)

Procédures de mesure des matériaux utilisés dans les
modules photovoltaïques - Partie 6-2: Essais génériques -
Essais de perméation à l'humidité des matériaux polymères
(IEC 62788-6-2:2020)

Messverfahren für Werkstoffe, die in Photovoltaik-Modulen
verwendet werden - Teil 6-2: Allgemeine Prüfungen -
Permeationsprüfung mit polymeren Materialien
(IEC 62788-6-2:2020)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN IEC 62788-6-2:2020 (E)**European foreword**

The text of document 82/1659/FDIS, future edition 1 of IEC 62788-6-2, prepared by IEC/TC 82 "Solar photovoltaic energy systems" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 62788-6-2:2020.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2021-01-23
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2023-04-23

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In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 61730-1 NOTE Harmonized as EN IEC 61730-1

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
ISO 2528	-	Sheet materials - Determination of water vapour transmission rate - Gravimetric (dish) method	-	-
ISO 9932	-	Paper and board - Determination of water vapour transmission rate of sheet materials - Dynamic sweep and static gas methods	-	-
ISO 15106-1	-	Plastics - Film and sheeting - Determination of water vapour transmission Rate - Part 1: Humidity detection sensor method	EN ISO 15106-1	-
ISO 15106-2	-	Plastics - Film and sheeting - Determination of water vapour transmission Rate - Part 2: Infrared detection sensor method	EN ISO 15106-2	-
ISO 15106-3	-	Plastics - Film and sheeting - Determination of water vapour transmission Rate - Part 3: Electrolytic detection sensor method	EN ISO 15106-3	-
ISO 15106-4	-	Plastics - Film and sheeting - Determination of water vapour transmission Rate - Part 4: Gas-chromatographic detection sensor method	-	-
IEC/TS 61836	-	Solar photovoltaic energy systems - Terms, definitions and symbols	-	-
ASTM F1249-06	-	Standard test method for water vapour transmission rate through plastic film and sheeting using a modulated infrared sensor	-	-

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IEC 62788-6-2

Edition 1.0 2020-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Measurement procedures for materials used in photovoltaic modules –
Part 6-2: General tests – Moisture permeation testing of polymeric materials**

**Procédures de mesure des matériaux utilisés dans les modules
photovoltaïques –
Partie 6-2: Essais génériques – Essais de perméation à l'humidité des matériaux
polymères**

INTERNATIONAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**MEASUREMENT PROCEDURES FOR MATERIALS
USED IN PHOTOVOLTAIC MODULES –**
**Part 6-2: General tests –
Moisture permeation testing of polymeric materials**
FOREWORD

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International Standard IEC 62788-6-2 has been prepared by IEC technical committee 82: Solar photovoltaic energy systems.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
82/1659/FDIS	82/1690/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62788 series, published under the general title *Measurement procedures for materials used in photovoltaic modules*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

This part of IEC 62788 describes methods to measure the permeation properties of polymeric materials. The degradation of PV modules is known to go through many different corrosion processes. These degradation processes may depend upon moisture ingress into the encapsulant, edge seal, frontsheet, or backsheet materials. Typical polymeric materials used include (amongst other polymers) ethylene-vinyl acetate (EVA) and polyolefins for encapsulants, polyisobutylene (PIB) for edge seals, and polyethylene terephthalate (PET), polyvinyl fluoride (PVF), or polyvinylidene fluoride (PVDF) for backsheets. Therefore, knowing the moisture permeation characteristics of polymeric materials is relevant for module design. These properties can be determined as a function of temperature and relative humidity. With these parameters, simple scaling rules for time and distance can be used to extrapolate to the use environments.

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