



**SLOVENSKI STANDARD  
SIST EN ISO 20088-2:2020**

**01-junij-2020**

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**Ugotavljanje obstojnosti izolacijskih materialov pri puščanju v kriogenem območju  
- 2. del: Izpostavljenost pari (ISO 20088-2:2020)**

Determination of the resistance to cryogenic spill of insulation materials - Part 2: Vapour exposure (ISO 20088-2:2020)

Bestimmung der Beständigkeit von Isoliermaterialien bei kryogenem Auslaufen - Teil 2: Dampfphase (ISO 20088-2:2020)

Détermination de la résistance des matériaux d'isolation thermique suite à un refroidissement cryogénique - Partie 2: Phase vapeur (ISO 20088-2:2020)

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**Ta slovenski standard je istoveten z: EN ISO 20088-2:2020**

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**ICS:**

|        |   |   |
|--------|---|---|
| 75.200 | Oprema za skladiščenje nafte, naftnih proizvodov in zemeljskega plina | Petroleum products and natural gas handling equipment |
|--------|---|---|

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 20088-2**

April 2020

ICS 75.200

English Version

**Determination of the resistance to cryogenic spill of  
insulation materials - Part 2: Vapour exposure (ISO 20088-  
2:2020)**

Détermination de la résistance des matériaux  
d'isolation thermique suite à un refroidissement  
cryogénique - Partie 2: Phase vapeur (ISO 20088-  
2:2020)

Bestimmung der Beständigkeit von Isoliermaterialien  
bei kryogenem Auslaufen - Teil 2: Dampfphase (ISO  
20088-2:2020)

This European Standard was approved by CEN on 31 March 2020.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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

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## European foreword

This document (EN ISO 20088-2:2020) has been prepared by Technical Committee ISO/TC 67/SC 9 "Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries" in collaboration with Technical Committee CEN/TC 282 "Installation and equipment for LNG" the secretariat of which is held by AFNOR.

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 October 2020, and conflicting national standards shall be withdrawn at the latest by October 2020.

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INTERNATIONAL  
STANDARD

ISO  
20088-2

First edition  
2020-01

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**Determination of the resistance  
to cryogenic spill of insulation  
materials —**

**Part 2:  
Vapour exposure**

**iTeh STANDARD PREVIEW**  
*Détermination de la résistance des matériaux d'isolation thermique  
suite à un refroidissement cryogénique —  
Partie 2: Phase vapeur*  
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Reference number  
ISO 20088-2:2020(E)

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CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
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Published in Switzerland



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## ISO 20088-2:2020(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)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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This document was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 9, *Liquefied natural gas installations and equipment*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 282, *Installation and equipment for LNG*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

A list of all parts in the ISO 20088 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

The test is intended to be, as far as practicable, representative of a potential accidental pressurised release of cryogenic LNG material manufactured in industrial plants. The test includes

- a) release from of cryogenic liquid under pressure, and
- b) scenarios where the conditions in the jet characterized predominantly by gaseous exposure.

Liquid jet release may be formed upon release of Liquefied Natural Gas (LNG) from process equipment operating at pressure, e.g., some liquefaction processes utilise 40 - 60 bar operating pressure. However, at specific distances from the release point, it is expected that the liquid fraction will diminish such that there is practically no effect from liquid cooling in the stream.

This test is designed to give an indication of how cryogenic spill protection materials will perform in a sudden exposure to cryogenic jet where it is expected that little or no liquid fraction is present.

The dimensions of the test specimen might be smaller than typical items of structure and plant. The liquid cryogenic jet mass flow rates can be substantially less than that which might occur in a credible event. However, individual thermal loads imparted to the cryogenic spill protection materials, from the cryogenic release defined in the procedure described in this document, have been shown to be representative of areas exposed to a cryogenic LNG accidental release where little or no liquid is present.

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