

SLOVENSKI STANDARD SIST EN ISO 20088-1:2017

01-januar-2017

Ugotavljanje obstojnosti izolacijskih materialov pri puščanju v kriogenem območju - 1. del: Tekoča faza (ISO 20088-1:2016)

Determination of the resistance to cryogenic spillage of insulation materials - Part 1: Liquid phases (ISO 20088-1:2016)

Bestimmung der Beständigkeit von Isoliermaterialien bei kryogenem Auslaufen - Teil 1: Flüssigkeit (ISO 20088-1:2016)

Détermination de la résistance des matériaux d'isolation thermique suite à un refroidissement cryogénique - Partie 1: Phase liquide (ISO 20088-1:2016)

Ta slovenski standard je istoveten z: EN ISO 20088-1:2016

ICS:

23.020.40 Proti mrazu odporne posode Cryogenic vessels

(kriogenske posode)

SIST EN ISO 20088-1:2017 en,fr,de

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 20088-1:2017

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN ISO 20088-1

October 2016

ICS 75.200

English Version

Determination of the resistance to cryogenic spillage of insulation materials - Part 1: Liquid phases (ISO 20088-1:2016)

Détermination de la résistance des matériaux d'isolation thermique suite à un refroidissement cryogénique - Partie 1: Phase liquide (ISO 20088-1:2016)

Bestimmung der Beständigkeit von Isoliermaterialien bei kryogenem Auslaufen - Teil 1: Flüssigkeit (ISO 20088-1:2016)

This European Standard was approved by CEN on 5 August 2016.

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.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

othed kingdom./ https://standards.iteh.ai/catalog/standards/sist/5bb06680-ed33-499b-9d72-0b1f0af920ca/sist-en-iso-20088-1-2017



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN ISO 20088-1:2016 (E)

Contents	Page
European foreword	3

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 20088-1:2017

European foreword

This document (EN ISO 20088-1:2016) has been prepared by Technical Committee ISO/TC 67 "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 April 2017, and conflicting national standards shall be withdrawn at the latest by April 2017.

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

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 20088-1:2016 has been approved by CEN as EN ISO 20088-1:2016 without any modification.

/sist/5hh06680 ad23 400h 0d72 0h1f0af020ca/sist an iso 20088 1 201

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 20088-1:2017

INTERNATIONAL STANDARD

ISO 20088-1

First edition 2016-09-15

Determination of the resistance to cryogenic spillage of insulation materials —

Part 1: **Liquid phase**

Détermination de la résistance des matériaux d'isolation thermique suite à un refroidissement cryogénique —

Partie 1: Phase liquide

Document Preview

SIST EN ISO 20088-1:2017



ISO 20088-1:2016(E)

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 20088-1:2017

https://standards.iteh.ai/catalog/standards/sist/5bb06680-ed33-499b-9d72-0b1f0af920ca/sist-en-iso-20088-1-2017



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Ch. de Blandonnet 8 • CP 401 CH-1214 Vernier, Geneva, Switzerland Tel. +41 22 749 01 11 Fax +41 22 749 09 47 copyright@iso.org www.iso.org

Contents		Page
Fore	eword	iv
Intro	oduction	v
1	Scope	1
2	Normative references	
3	Terms and definitions	
4	Test configurations	
	4.1 General	
	4.2 Sample holder	2
5	Construction of the test items and substrates	
	5.1 General	
	5.2 Material	
	5.3 Release tank	
	5.5 Sample holder	
	5.6 Test method	
6	Cryogenic spillage protection materials	7
Ū	6.1 General	
	6.2 Wet applied coating systems	7
	6.3 Pre-formed system testing	7
7	Instrumentation	
	7.1 General ATTINS // ST2MQ2KQS ITEM 21	
	7.2 Thermocouple location	
8	Test apparatus and conditions Mem Preview	
	8.1 Injection point and position	
	8.1.1 General	
	8.1.2 Injection point position 8.2 Test environment	920ca/sist-en-iso-20088-1-2 o
9	Test procedure	
10	Repeatability and reproducibility	
11	Uncertainty of measurement	10
12	Test report	10
13	Practical applications of test results	
	13.1 General	
	13.2 Performance criteria	
	13.2.1 General 13.2.2 Coatings and spray-applied materials	
	13.2.3 Systems and assemblies	
	13.3 Factors affecting the validity of the test	
	13.3.1 General	12
	13.3.2 Leakage of the release tank	
	13.3.3 Failure of thermocouples	
	13.3.4 Loss of sample integrity/loss of containment	
	ex A (normative) Methods of fixing thermocouples	
Annex B (normative) Complete set-up		
Anne	ex C (normative) Thermocouple positioning inside the sample hole	der17
Anne	ex D (informative) Classification	19

iii

ISO 20088-1:2016(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).

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).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 67, *Materials, equipment and offshore structure* for petroleum, petrochemical and natural gas industries, Subcommittee SC 9, Liquefied natural gas installations and equipment.

SIST EN ISO 20088-1:2017

Introduction

The test described in the procedure in this document is one in which some of the properties of cryogenic spillage protection materials can be determined. This test is designed to give an indication of how cryogenic spillage protection materials will perform in a sudden exposure to cryogenic liquid.

The dimensions of the test specimen can be smaller than typical items of structure and plant and the release of liquid can be substantially less than that which might occur in a credible event. However, individual thermal and mechanical loads imparted to the cryogenic spillage protection materials, from the cryogenic spillage defined in the procedure described in this document, have been shown to be similar to those by large-scale cryogenic spillage.

Further parts of ISO 20088 are planned for future publication:

- Part 2 : Vapour phase;
- Part 3: High pressure jet release.

iTeh Standards (https://standards.iteh.ai) Document Preview

SIST EN ISO 20088-1:2017