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I.S. EN 13555:2014

Flanges and their joints - Gasket parameters and test procedures relevant to the design rules for gasketed circular flange connections

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13555

April 2014

ICS 23.040.60; 23.040.80

Supersedes EN 13555:2004

English Version

Flanges and their joints - Gasket parameters and test procedures relevant to the design rules for gasketed circular flange connections

Brides et leurs assemblages - Paramètres de joints et procédures d'essai relatives aux règles de calcul des assemblages à brides circulaires avec joint

Flansche und ihre Verbindungen - Dichtungskennwerte und Prüfverfahren für die Anwendung der Regeln für die Auslegung von Flanschverbindungen mit runden Flanschen und Dichtungen

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Foreword

This document (EN 13555:2014) has been prepared by Technical Committee CEN/TC 74 “Flanges and their joints”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by October 2014, and conflicting national standards shall be withdrawn at the latest by October 2014.

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.

This document supersedes EN 13555:2004.

In comparison to EN 13555:2004 the following changes have been made:

a) in Clause 3 the list of definitions has been revised;

b) in Clause 4 the list of symbols has been revised;

c) a new sub-clause 6.3 with testing requirements for metal foils has been added;

d) sub-clause 6.4 on surface finish has been revised;

e) sub-clauses 7.2 and 7.3 on test gaskets have been revised;

f) Clause 8 including Figure 1a) to Figure 6 on testing procedures has been completely revised;

g) in Clause 9 the report details have been revised;

h) Annex F on relationship of gasket parameters in EN 13555 with those from PVRC method has been revised;

i) a new informative Annex G on determination of the sealing characteristics of strip sealing materials available in coil form has been added;

j) a new informative Annex H on the proposed method for the determination of the coefficient of static friction of gaskets has been added.

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.

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Introduction

This document provides the test procedures to allow the generation of the gasket parameters to enable the design equations established in EN 1591-1 to be employed. The same test procedures may be used for “Type Testing” of gaskets and gasket materials. These procedures are not for routine quality control purposes.

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1 Scope

This European Standard specifies the gasket parameters required by EN 1591-1 and provides the test procedures for establishing the values of these parameters.

Gaskets which are wholly based upon elastomers, or based upon elastomers with only the inclusion of particulate fillers or particulate reinforcement, as opposed to gaskets combining elastomers, fillers and fibrous reinforcement, are beyond the scope of this document.

NOTE The testing procedures given might be applicable to gaskets of other shapes and dimensions.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1092 (all parts), *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated*

EN 1514-1, *Flanges and their joints - Dimensions of gaskets for PN-designated flanges - Part 1: Non-metallic flat gaskets with or without inserts*

EN 1514-2, *Flanges and their joints - Gaskets for PN-designated flanges - Part 2: Spiral wound gaskets for use with steel flanges*

EN 1514-3, *Flanges and their joints - Dimensions of gaskets for PN-designated flanges - Part 3: Non-metallic PTFE envelope gaskets*

EN 1514-4, *Flanges and their joints - Dimensions of gaskets for PN-designated flanges - Part 4: Corrugated, flat or grooved metallic and filled metallic gaskets for use with steel flanges*

EN 1514-6, *Flanges and their joints - Dimensions of gaskets for PN-designated flanges - Part 6: Covered serrated metal gaskets for use with steel flanges*

EN 1514-7, *Flanges and their joints - Gaskets for PN-designated flanges - Part 7: Covered metal jacketed gaskets for use with steel flanges*

EN 1591-1, *Flanges and their joints - Design rules for gasketed circular flange connections - Part 1: Calculation*

EN 1759 (all parts), *Flanges and their joint - Circular flanges for pipes, valves, fittings and accessories, Class designated*

EN 12560-1, *Flanges and their joints - Gaskets for Class-designated flanges - Part 1: Non-metallic flat gaskets with or without inserts*

EN 12560-2, *Flanges and their joints - Dimensions of gaskets for Class-designated flanges - Part 2: Spiral wound gaskets for use with steel flanges*

EN 12560-3, *Flanges and their joints - Gaskets for Class-designated flanges - Part 3: Non-metallic PTFE envelope gaskets*

EN 12560-4, *Flanges and their joints - Gaskets for Class-designated flanges - Part 4: Corrugated, flat or grooved metallic and filled metallic gaskets for use with steel flanges*

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