

**Flänsar och deras förband – Packningar till  
klassbetecknade flänsar –**

Del 7: Täckta och mantlade metallpackningar för  
användning tillsammans med stålflänsar

**Flanges and their joints – Gaskets for Class-  
designated flanges –**

Part 7: Covered metal jacketed gaskets for use with  
steel flanges

Europastandarden EN 12560-7:2004 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 12560-7:2004.

The European Standard EN 12560-7:2004 has the status of a Swedish Standard. This document contains the official English version of EN 12560-7:2004.

---

Upplysningar om **sakinnehållet** i standarden lämnas av SIS, Swedish Standards Institute, telefon 08 - 555 520 00.

Standarder kan beställas hos SIS Förlag AB som även lämnar **allmänna upplysningar** om svensk och utländsk standard.

*Postadress:* SIS Förlag AB, 118 80 STOCKHOLM  
*Telefon:* 08 - 555 523 10. *Telefax:* 08 - 555 523 11  
*E-post:* [sis.sales@sis.se](mailto:sis.sales@sis.se). *Internet:* [www.sis.se](http://www.sis.se)

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 12560-7**

June 2004

ICS 23.040.80

English version

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

Brides et leurs assemblages - Joints pour les brides  
désignées Class - Partie 7: Joints métalloplastiques  
revêtus pour utilisation avec des brides en acier

Flansche und ihre Verbindungen - Dichtungen für Flansche  
mit Class-Bezeichnung - Teil 7: Metallummantelte  
Dichtungen mit Auflage für Stahlflansche

This European Standard was approved by CEN on 1 April 2004.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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



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

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

## Contents

	page
Foreword.....	3
<b>1 Scope .....</b>	<b>4</b>
<b>2 Normative references .....</b>	<b>4</b>
<b>3 Terms and definitions .....</b>	<b>4</b>
<b>4 Designations .....</b>	<b>4</b>
4.1 Range of Class designations.....	4
4.2 Range of gasket sizes .....	5
4.3 Gasket types.....	5
4.4 Information to be supplied by the purchaser .....	5
<b>5 Constructional details .....</b>	<b>5</b>
5.1 General details .....	5
5.2 Metal jacket.....	7
5.2.1 Metal jacket description .....	7
5.2.2 Metal jacket material.....	7
5.3 Soft filler .....	7
5.3.1 Soft filler description.....	7
5.3.2 Soft filler material.....	7
5.4 Covering layers .....	8
5.4.1 Covering layers description .....	8
5.4.2 Covering layers material .....	8
5.5 Inner and outer rings .....	8
5.5.1 Inner and outer rings description .....	8
5.5.2 Inner and outer rings material .....	9
5.6 Attachment of facing .....	9
5.6.1 Methods of attachment .....	9
5.6.2 De-greasing of core .....	9
5.6.3 Number of joins.....	9
5.6.4 Excessive facing .....	9
5.7 Integrity of facing attachment .....	9
5.8 Construction characteristics details.....	9
<b>6 Dimenisons.....</b>	<b>10</b>
<b>7 Marking .....</b>	<b>12</b>
<b>8 Colour coding.....</b>	<b>13</b>
<b>9 Packaging .....</b>	<b>13</b>
<b>Annex A (informative) Information to be supplied by the purchaser.....</b>	<b>15</b>
<b>Annex B (informative) A-deviation.....</b>	<b>16</b>
<b>Bibliography .....</b>	<b>18</b>

## Foreword

This document (EN 12560-7:2004) 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 December 2004, and conflicting national standards shall be withdrawn at the latest by December 2004.

The annex A is informative and contains "Information to be supplied by the purchaser".

The annex B is informative and contains "A-deviations".

EN 12560 consists of 7 parts:

*Part 1: Non-metallic flat gaskets with or without inserts*

*Part 2: Spiral wound gaskets for use with steel flanges*

*Part 3: Non-metallic PTFE envelope gaskets*

*Part 4: Corrugated, flat or grooved metallic and filled metallic gaskets for use with steel flanges*

*Part 5: Metallic ring joint gaskets for use with steel flanges*

*Part 6: Covered serrated metal gaskets for use with steel flanges*

*Part 7: Covered metal jacketed gaskets for use with steel flanges*

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

## EN 12560-7:2004 (E)

### 1 Scope

This European Standard specifies the construction, dimensions and marking of covered metal jacketed gaskets for use with flanges complying with prEN 1759-1 for Class 150, Class 300, Class 600, Class 900, Class 1 500 for sizes up to and including NPS 24, and for Class designation 2 500 up to and including NPS 12.

This European Standard does not extend to covered metal jacketed based heat exchanger gaskets with pass bars or large vessel gaskets but, in the lack of a dedicated document for such gaskets, the principles set down may be applied to them.

NOTE 1 Dimensions of other types of gaskets for use with flanges to prEN 1759-1, EN 1759-3 and EN 1759-4 are given in EN 12560-1, EN 12560-2, EN 12560-3, EN 12560-4, EN 12560-5 and EN 12560-6.

NOTE 2 Annex A lists information that should be supplied by the purchaser when ordering gaskets in circumstances where the choice of the gasket materials appropriate to the service is left to the supplier.

### 2 Normative references

Not applicable.

### 3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

#### 3.1

##### **covered metal jacketed gasket**

consists of a sealing element with or without a location ring which may not be rigidly fixed to the sealing element

NOTE The sealing element consists of a metal jacketed core and a conformable sealing material adhered both top and lower metal jacketed core surfaces.

#### 3.2

##### **DN**

see EN ISO 6708

#### 3.3

##### **NPS**

see EN 1759-3

#### 3.4

##### **Class**

see EN 1759-3

### 4 Designations

#### 4.1 Range of Class designations

Gaskets shall be designated as suitable for use with one or more of the following Class designations of flange:

Class 150, Class 300, Class 600, Class 900, Class 1 500 and Class 2 500.

## 4.2 Range of gasket sizes

Gasket nominal sizes shall also be designated in accordance with the ranges specified in Tables 2 and 3.

The general principles described in this standard shall be applied to gaskets outside of the ranges specified in Tables 2 and 3 by agreement between supplier and customer.

## 4.3 Gasket types

Gasket types, as illustrated in Figure 1, shall be designated as:

Type SC: Sealing element self centring (used with type C/D or E/F flange facings);

Type C/I: Sealing element with inner ring (used with type C/D or E/F flange facings);

Type C/O: Sealing element with centring ring (used with type A or B flange facings);

Type C/IO: Sealing element with centring ring and inner ring (used with type A or B flange facings).

The type A, type B, type C/D, type E/F flange facings are specified in prEN 1759-1.

## 4.4 Information to be supplied by the purchaser

The selection of gasket materials and type should take into account the fluid, the operating conditions and the properties of the gasket materials as well as the type of flange. It is recommended that the selection of a gasket for any particular application is made in consultation with the gasket supplier who will advise on the materials required for a particular service (see annex A).

## 5 Constructional details

### 5.1 General details

The covered metal jacketed gasket shall consist of a metal jacketed core and of covering layers stuck on both sides.

All gasket sizes and classes shall be designed so that an applied uniform bolt stress of 200 MPa will correctly seat the gasket and offer the required level of seal.

Gaskets for which dimensions are specified shall be one of the designs shown in Figure 1.

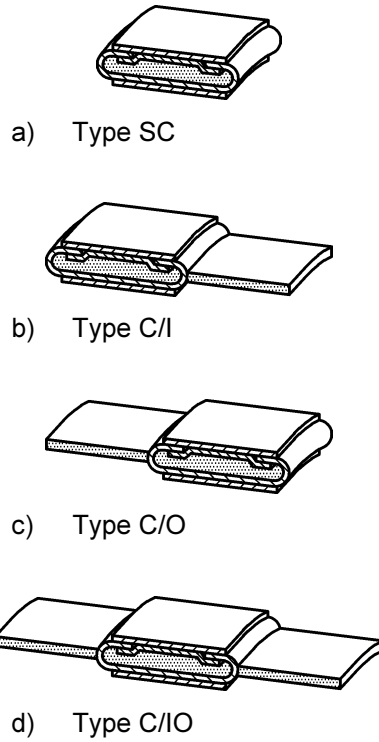
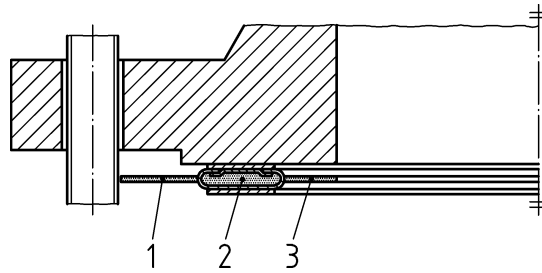
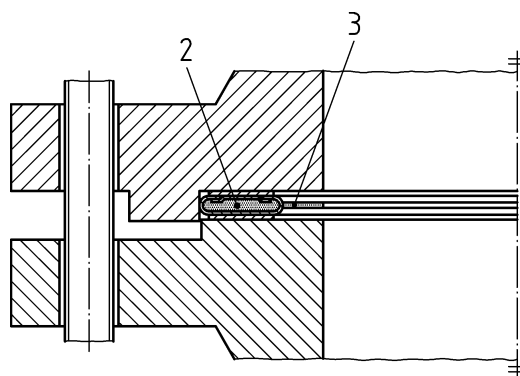


Figure 1 — Covered metal jacketed gaskets



a) gaskets (C/O or C/IO type) for use with type A (flat face) or type B (raised face) flanges



b) gaskets (SC or C/I type) for use with type C/D (tongue/groove) or type E/F (spigot/recess) flanges

**Key**

- 1 Centring ring
- 2 Sealing element
- 3 Inner ring

Figure 2 — Examples of typical covered metal jacketed gaskets configurations