



BSI Standards Publication

**Aerospace series - Static seal elements  
elastomer, moulded, phosphate ester  
resistant - Technical specification**

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## National foreword

This British Standard is the UK implementation of EN 6109:2018.

The UK participation in its preparation was entrusted to Technical Committee ACE/69, Aerospace hydraulic systems, fluids and components.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

**Aerospace series - Static seal elements elastomer,  
moulded, phosphate ester resistant - Technical  
specification**

Série aérospatiale - Joint d'étanchéité statique  
élastomère, moulé, résistant à l'ester phosphorique -  
Spécification technique

Luft- und Raumfahrt - Statische Dichtungen Elastomer,  
geformt, beständig gegen Phosphorsäureester -  
Technische Lieferbedingungen

This European Standard was approved by CEN on 19 February 2018.

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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.

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

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## European foreword

This document (EN 6109:2018) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

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of an identical text or by endorsement, at the latest by February 2019, and conflicting national standards shall be withdrawn at the latest by February 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard defines the requirements for moulded elastomer seal elements for use in hydraulic systems using phosphate ester fluids for aerospace application. It shall be applied in conjunction with relevant material standards unless otherwise specified on the drawing, order, inspection schedule or contractual document.

## 2 Normative references

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.

EN 2751, *Aerospace series — Storage conditions for rubber products — Requirements for storage, cleaning and maintenance*<sup>1)</sup>

EN 3445, *Aerospace series — Guidelines for the permissible storage life of rubber products*<sup>1)</sup>

EN 6075, *Aerospace series — Static seal elements O-Ring ethylene-propylene, moulded, phosphate ester resistant (–55 °C to 107 °C) — Inch series*

EN 6076, *Aerospace series — Static seal elements O-Ring straight thread tube fitting boss, ethylene-propylene, moulded, phosphate ester resistant (–55 °C to 107 °C) — Inch series*

EN 6102, *Aerospace series — Fluid — Hydraulic — Phosphate ester-base — Fire resistant — Technical specification*<sup>1)</sup>

EN 9102, *Aerospace series — Quality systems — First article inspection*

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

EN 10204, *Metallic products — Types of inspection documents*

ISO 48, *Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD)*

ISO 188, *Rubber, vulcanized or thermoplastic — Accelerated ageing and heat resistance tests*

ISO 1817, *Rubber, vulcanized or thermoplastic — Determination of the effect of liquids*

ISO 2781, *Rubber, vulcanized or thermoplastic — Determination of density*

ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection*

ISO 3601-3, *Fluid power systems — O-rings — Part 3: Quality acceptance criteria*

ISO 23529, *Rubber — General procedures for preparing and conditioning test pieces for physical test methods*

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1) In preparation at the date of publication of this European Standard.