



National Standards Authority of Ireland

IRISH STANDARD

**I.S. EN 3747:2007**

ICS 49.025.40

**AEROSPACE SERIES - O-RINGS, IN  
FLUOROSILICONE RUBBER (FVMQ) -  
TECHNICAL SPECIFICATION**

National Standards  
Authority of Ireland  
Glasnevin, Dublin 9  
Ireland

Tel: +353 1 807 3800  
Fax: +353 1 807 3838  
<http://www.nsai.ie>

**Sales**

<http://www.standards.ie>

*This Irish Standard was  
published under the authority  
of the National Standards  
Authority of Ireland and  
comes into effect on:  
24 July 2007*

**NO COPYING WITHOUT NSAI  
PERMISSION EXCEPT AS  
PERMITTED BY COPYRIGHT  
LAW**

© NSAI 2007

**Price Code E**

Údarás um Chaighdeán Náisiúnta na hÉireann

*This page is intentionally left BLANK.*

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 3747**

June 2007

ICS 49.025.40

Supersedes EN 3747:2003

English Version

**Aerospace series - O-rings, in fluorosilicone rubber (FVMQ) -  
Technical specification**

This European Standard was approved by CEN on 11 September 2003.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, 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**

<b>Contents</b>	<b>Page</b>
<b>Foreword</b> .....	<b>3</b>
<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 Quality assurance</b> .....	<b>5</b>
<b>5 Requirements</b> .....	<b>6</b>
<b>Annex A (normative) Packaging</b> .....	<b>8</b>

## **Foreword**

This document (EN 3747:2007) 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 December 2007, and conflicting national standards shall be withdrawn at the latest by December 2007.

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 3747:2003.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

## EN 3747:2007 (E)

### 1 Scope

This standard specifies the characteristics, qualification and acceptance requirements for O-rings in fluorosilicone rubber (FVMQ) to EN 3825, EN 3826 and EN 3827, for aerospace applications.

It is applicable whenever referenced.

### 2 Normative references

The following referenced documents are indispensable for the application 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.

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 1749, *Aircraft — Elastomeric sealing rings — Packaging and identification*.

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

ISO 2781, *Rubber, vulcanized — 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*.

EN 3376, *Aerospace series — Limits of surface imperfections of elastomeric toroidal sealing rings (o-rings)*.<sup>1)</sup>

EN 3825, *Aerospace series — Fluorosilicone rubber (FVMQ) — Hardness 60 IRHD*.<sup>1)</sup>

EN 3826, *Aerospace series — Fluorosilicone rubber (FVMQ) — Hardness 70 IRHD*.<sup>1)</sup>

EN 3827, *Aerospace series — Fluorosilicone rubber (FVMQ) — Hardness 80 IRHD*.<sup>1)</sup>

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

ASTM D 1414-94, *Standard test methods for rubber O-rings*.<sup>2)</sup>

### 3 Terms and definitions

For the purposes of this standard the following terms and definitions apply.

**3.1**  
**production batch**  
quantity of O-rings manufactured from the same batch of rubber compound having the same section diameter vulcanized in the same oven load

---

1) Published as ASD Prestandard at the date of publication of this standard.

2) Published by: American Society for Testing and Materials (ASTM), 1916 Race street, Philadelphia, PA 19103, USA.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-