SLOVENSKI STANDARD
SIST EN 2835:2012

01-september-2012

Aeronavtika - Kloroprenska guma - Toplotno odporna - Trdota 40 IRHD

Aerospace series - Chloroprene rubber (CR) - Heat resistance - Hardness 40 IRHD

Luft- und Raumfahrt - Chloropren-Elastomer (CR) - Wärmebeständig - Härte 40 IRHD

Série aérospatiale - Élastomère chloroprène (CR) - Résistant à la chaleur - Dureté 40 DIDC

Ta slovenski standard je istoveten z: **EN 2835:2012**

ICS:

49.025.40 Guma in polimerni materiali Rubber and plastics

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EUROPEAN STANDARD

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English Version

Aerospace series - Chloroprene rubber (CR) - Heat resistance - Hardness 40 IRHD

Série aérospatiale - Élastomère chloroprène (CR) - Résistant à la chaleur - Dureté 40 DIDC

Luft- und Raumfahrt - Chloropren-Elastomer (CR) - Wärmebeständig - Härte 40 IRHD

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

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Foreword

This document (EN 2835:2012) 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of an identical text or by endorsement, at the latest by September 2012, and conflicting national standards shall be withdrawn at the latest by September 2012.

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1 Scope

This European Standard specifies the properties of chloroprene rubber (CR) [1)] heat resistant, hardness 40 IRHD, for aerospace applications.

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 3207, *Aerospace series — Rubber compounds — Technical specification*

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

3 Application of the material

3.1 General

The suitability of the material for a specific application shall be determined by complementary tests carried out on the finished product as the properties specified in this standard are obtained from standard test specimens.

3.2 Typical use

For applications where resistance to atmospheric ageing and ozone attack is required coupled with moderate resistance to petroleum based fuels and lubricants.

3.3 Temperature range

— Continuous service : from – 40 °C to 120 °C;

— Intermittent service : from – 40 °C to 150 °C.

4 Properties

See Table 1 and Table 2 according to EN 3207.

For qualification, all tests shall be performed.

For batch acceptance, the tests identified with footnote "*" in Table 1 and Table 2 shall be performed.

1) Symbol as per ISO 1629.

Table 1 — Test methods

Line	Column 1 Properties	2 Units	3 Requirements
1	Hardness	IRHD	40^{+5}_{-4} *
2	–	–	–
3	Density	Mg/m^3	[a] *
4	–	–	–
5	Tensile strength	MPa	11 min. *
6	–	–	–
7	Elongation at break	%	500 min. *
8	–	–	–
9	Modulus at … % strain	MPa	–
10	–	–	–
11	Tear strength	N/mm	–
12	–	–	–
13	Resistance to low temperatures TR 10	°C	– 30 max.
14	Crystallization 168 h at 10 °C	Point	+ 5
15	Compression set	%	–
15.1	After 24 h to 125 °C		40 max. *
15.2	After … h to … °C		–
16	–	–	–
17	Ozone resistance Ozone concentration : (50 ± 5) pphm Elongation of test piece : 20 % Time : 70 h Temperature : 30 °C	–	nil cracking
18	–	–	–
19	Corrosion and adhesion on metals Time : 168 h Temperature : 100 °C	–	no corrosion no adhesion
20	Corrosion and adhesion on metals	–	–
20.1	Time : … h Temperature : … °C Humidity : … %		
20.2	Time : … h Temperature : … °C Humidity : … %		
21	–	–	–
22	–	–	–
23	–	–	–
24	–	–	–
25	–	–	–
26	–	–	–
27	–	–	–
28	–	–	–
29	–	–	–
30	–	–	–

* Test for batch accepted.

[a] The value determined for each batch shall not differ from that determined at qualification by more than 0,02 Mg/m^3.

Table 2 — Tests

Line	Column					
	1		2	3	4	5
1	Test media		–	Air	Liquid B, see ISO 1817	–
2	Conditions of exposure in test media		Units	70 h/125 °C	70 h/23 °C	–
3	Permitted variation of the properties compared to the initial value	Volume	%	–	+ 100 *	–
4		Mass	%	–	–	–
5		Tensile strength	%	+15 −10 *	–	–
6		Elongation at break	%	+ 5 −30 *	–	–
7		Hardness	IRHD	+10 0 *	–	–
8	–	–	–	–	–	–

* Test for batch acceptance.

5 Designation

EXAMPLE

Description block **Identity block**

RUBBER **EN2835**

Number of this standard

6 Technical specification

See EN 3207.