



NSAI
Standards

Irish Standard
I.S. EN 4825:2021

Aerospace series - Steel X12CrNiMoV12-3
(1.4938) - Air melted and consumable
electrode remelted - Hardened and
tempered - Bars - $D_e \leq 150$ mm - 900
 $\text{MPa} \leq R_m \leq 1\ 100$ MPa

I.S. EN 4825:2021

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National Foreword

I.S. EN 4825:2021 is the adopted Irish version of the European Document EN 4825:2021, Aerospace series - Steel X12CrNiMoV12-3 (1.4938) - Air melted and consumable electrode remelted - Hardened and tempered - Bars - $D_e \leq 150$ mm - 900 MPa $\leq R_m \leq 1\ 100$ MPa

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EUROPEAN STANDARD

EN 4825

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2021

ICS 49.025.10

English Version

**Aerospace series - Steel X12CrNiMoV12-3 (1.4938) - Air
melted and consumable electrode remelted - Hardened
and tempered - Bars - $De \leq 150$ mm - 900 MPa $\leq R_m \leq 1$
100 MPa**

Série aérospatiale - Acier X12CrNiMoV12-3 (1.4938) -
Élaboré à l'air et refondu à l'électrode consommable -
Trempe et revenu - Barres - $De \leq 150$ mm - 900 MPa \leq
 $R_m \leq 1$ 100 MPa

Luft- und Raumfahrt - Stahl X12CrNiMoV12-3 (1.4938)
- Lufterschmolzen und mit selbstverzehrender
Elektrode umgeschmolzen - Gehärtet- und angelassen -
Stangen - $De \leq 150$ mm - 900 MPa $\leq R_m \leq 1$ 100 MPa

This European Standard was approved by CEN on 18 January 2021.

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-CENELEC 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-CENELEC Management Centre has the same status as the official versions.

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COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 4825:2021) 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 document 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 document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2021, and conflicting national standards shall be withdrawn at the latest by November 2021.

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 document: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 4825:2021 (E)

Introduction

This document is part of the series of EN metallic material standards for aerospace applications. The general organization of this series is described in EN 4258.

This document has been prepared in accordance with EN 4500-005.

This document allows to be in compliance with the requirements of the grade of WL 1.4939 and 1.4933 if the steel maker aims C 0,008-0,13 % max. and Si \leq 0,35 %.

1 Scope

This document specifies the requirements relating to:

Steel X12CrNiMoV12-3 (1.4938)
Air melted and consumable electrode remelted
Hardened and tempered
Bars
 $D_e \leq 150$ mm
 $900 \text{ MPa} \leq R_m \leq 1\,100 \text{ MPa}$

for aerospace applications.

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 2043, *Aerospace series — Metallic materials — General requirements for semi-finished product qualification (excluding forgings and castings)*

EN 2951, *Aerospace series — Metallic materials — Micrographic determination of content of non-metallic inclusions*

EN 4050-4, *Aerospace series — Test method for metallic materials — Ultrasonic inspection of bars, plates, forging stock and forgings — Part 4: Acceptance criteria*

EN 4700-002, *Aerospace series — Steel and heat resisting alloys — Wrought products — Technical specification — Part 002: Bar and section* ¹⁾

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <http://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Requirements

See Table 1.

¹⁾ Published as ASD-STAN Standard at the date of publication of this document by AeroSpace and Defence industries Association of Europe — Standardization (ASD-STAN), <http://www.asd-stan.org/>.

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