

**Aerospace series – Steel FE-WA4801  
(X6CrNiMnNb18-10) – Filler metal for  
welding**

Europastandarden EN 3897:2001 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 3897:2001.

The European Standard EN 3897:2001 has the status of a Swedish Standard. This document contains the official English version of EN 3897:2001.

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 3897**

December 2001

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ICS 49.025.10

English version

**Aerospace series - Steel FE-WA4801 (X6CrNiMnNb18-10) -  
Filler metal for welding**

Série aérospatiale - Acier FE-WA4801 (X6CrNiMnNb18-10)  
- Métal d'apport de soudage

Luft- und Raumfahrt - Stahl FE-WA4801 (X6CrNiMnNb18-  
10) - Schweißzusatz

This European Standard was approved by CEN on 2 May 2001.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, 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**

## Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries 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 AECMA, 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 June 2002, and conflicting national standards shall be withdrawn at the latest by June 2002.

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

## 0 Introduction

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

This standard has been prepared in accordance with EN 4500-5.

## 1 Scope

This standard specifies the requirements relating to:

Steel FE-WA4801 (X6CrNiMnNb18-10)  
Filler metal for welding

for aerospace applications.

## 2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 2043	Aerospace series – Metallic materials – General requirements for semi-finished product qualification (excluding forgings and castings) <sup>1)</sup>
EN 3879	Aerospace series – Metallic materials – Filler metals for welding – Technical specification <sup>1)</sup>
EN 4258	Aerospace series – Metallic materials – General organization of standardization – Links between types of EN standards and their use
EN 4500-5	Aerospace series - Metallic materials - Rules for drafting and presentation of material standards - Part 5: Specific rules for steels <sup>1)</sup>

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

EN 3897:2001 (E)

1	Material designation		Steel FE-WA4801 (X6CrNiMnNb18-10)										
2	Chemical composition %	Element	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Nb+Ta	Fe
		min.	–	0,30	1,00	–	–	17,0	–	9,0	–	12xC	Base
		max.	0,07	1,00	2,00	0,030	0,030	20,0	0,75	13,0	0,75	1,0	
3	Method of melting		Air melted										
4.1	Form		Filler wire and filler rods										
4.2	Method of production		Cold drawn										
4.3	Limit dimension(s)	mm	–										
5	Technical specification		EN 3879										

6.1	Delivery condition		Cold drawn and annealed										
	Heat treatment		–										
6.2	Delivery condition code		U										
7	Use condition		Delivery condition										
	Heat treatment		–										

Characteristics

8.1	Test sample(s)		–											
8.2	Test piece(s)		–											
8.3	Heat treatment		–											
9	Dimensions concerned	mm	–											
10	Thickness of cladding on each face	%	–											
11	Direction of test piece		–											
12	Temperature	$\theta$	°C	–										
13	Proof stress	$R_{p0,2}$	MPa	–										
14	T	Strength	$R_m$	MPa	–									
15		Elongation	A	%	–									
16		Reduction of area	Z	%	–									
17		Hardness		–										
18	Shear strength	$R_c$	MPa	–										
19	Bending	k	–	–										
20	Impact strength		–											
21	Temperature	$\theta$	°C	–										
22	Time		h	–										
23	C	Stress	$\sigma_a$	MPa	–									
24		Elongation	a	%	–									
25		Rupture stress	$\sigma_R$	MPa	–									
26		Elongation at rupture	A	%	–									
27	Notes (see line 98)		–											