

SVENSK STANDARD

SS-EN ISO 544:2011

Fastställt/Approved: 2011-04-06
Publicerad/Published: 2011-06-01
Utgåva/Edition: 2
Språk/Language: engelska/English
ICS: 25.160.20

Tillsatsmaterial för svetsning – Tekniska leveransvillkor för tillsatsmaterial för svetsning – Produkttyp, dimensioner, toleranser och märkning (ISO 544:2011)

Welding consumables – Technical delivery conditions for filler materials and fluxes – Type of product, dimensions, tolerances and markings (ISO 544:2011)

This preview is downloaded from www.sis.se. Buy the entire standard via <https://www.sis.se/std-77540>

Standarder får världen att fungera

SIS (Swedish Standards Institute) är en fristående ideell förening med medlemmar från både privat och offentlig sektor. Vi är en del av det europeiska och globala nätverk som utarbetar internationella standarder. Standarder är dokumenterad kunskap utvecklad av framstående aktörer inom industri, näringsliv och samhälle och befrämjar handel över gränser, bidrar till att processer och produkter blir säkrare samt effektiviserar din verksamhet.

Delta och påverka

Som medlem i SIS har du möjlighet att påverka framtida standarder inom ditt område på nationell, europeisk och global nivå. Du får samtidigt tillgång till tidig information om utvecklingen inom din bransch.

Ta del av det färdiga arbetet

Vi erbjuder våra kunder allt som rör standarder och deras tillämpning. Hos oss kan du köpa alla publikationer du behöver – allt från enskilda standarder, tekniska rapporter och standardpaket till handböcker och onlinetjänster. Genom vår webbtjänst e-nav får du tillgång till ett lättnavigerat bibliotek där alla standarder som är aktuella för ditt företag finns tillgängliga. Standarder och handböcker är källor till kunskap. Vi säljer dem.

Utveckla din kompetens och lyckas bättre i ditt arbete

Hos SIS kan du gå öppna eller företagsinterna utbildningar kring innehåll och tillämpning av standarder. Genom vår närhet till den internationella utvecklingen och ISO får du rätt kunskap i rätt tid, direkt från källan. Med vår kunskap om standarders möjligheter hjälper vi våra kunder att skapa verklig nytta och lönsamhet i sina verksamheter.

Vill du veta mer om SIS eller hur standarder kan effektivisera din verksamhet är du välkommen in på www.sis.se eller ta kontakt med oss på tel 08-555 523 00.



Standards make the world go round

SIS (Swedish Standards Institute) is an independent non-profit organisation with members from both the private and public sectors. We are part of the European and global network that draws up international standards. Standards consist of documented knowledge developed by prominent actors within the industry, business world and society. They promote cross-border trade, they help to make processes and products safer and they streamline your organisation.

Take part and have influence

As a member of SIS you will have the possibility to participate in standardization activities on national, European and global level. The membership in SIS will give you the opportunity to influence future standards and gain access to early stage information about developments within your field.

Get to know the finished work

We offer our customers everything in connection with standards and their application. You can purchase all the publications you need from us - everything from individual standards, technical reports and standard packages through to manuals and online services. Our web service e-nav gives you access to an easy-to-navigate library where all standards that are relevant to your company are available. Standards and manuals are sources of knowledge. We sell them.

Increase understanding and improve perception

With SIS you can undergo either shared or in-house training in the content and application of standards. Thanks to our proximity to international development and ISO you receive the right knowledge at the right time, direct from the source. With our knowledge about the potential of standards, we assist our customers in creating tangible benefit and profitability in their organisations.

If you want to know more about SIS, or how standards can streamline your organisation, please visit www.sis.se or contact us on phone +46 (0)8-555 523 00



Europastandarden EN ISO 544:2011 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN ISO 544:2011.

Denna standard ersätter SS-EN ISO 544, utgåva 1.

The European Standard EN ISO 544:2011 has the status of a Swedish Standard. This document contains the official English version of EEN ISO 544:2011.

This standard supersedes the Swedish Standard SS-EN ISO 544, edition 1.

© Copyright/Upphovsrätten till denna produkt tillhör SIS, Swedish Standards Institute, Stockholm, Sverige. Användningen av denna produkt regleras av slutanvändarlicensen som återfinns i denna produkt, se standardens sista sidor.

© Copyright SIS, Swedish Standards Institute, Stockholm, Sweden. All rights reserved. The use of this product is governed by the end-user licence for this product. You will find the licence in the end of this document.

Uppllysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna uppllysningar om svensk och utländsk standard.

Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Standarden är framtagen av kommittén för Tillsatsmaterial för svetsning, SIS/TK 134/AGS 443.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

EUROPEAN STANDARD

EN ISO 544

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2011

ICS 25.160.20

Supersedes EN ISO 544:2003

English Version

Welding consumables - Technical delivery conditions for filler materials and fluxes - Type of product, dimensions, tolerances and markings (ISO 544:2011)

Produits consommables pour le soudage - Conditions techniques de livraison des matériaux d'apport et des flux - Type de produit, dimensions, tolérances et marquage (ISO 544:2011)

Bitumenschindeln mit mineralhaltiger Einlage und/oder Kunststoffeinlage - Produktspezifikation und Prüfverfahren (ISO 544:2011)

This European Standard was approved by CEN on 10 March 2011.

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.

CEN members are the national standards bodies of 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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

This document (EN ISO 544:2011) has been prepared by Technical Committee ISO/TC 44 "Welding and allied processes" in collaboration with Technical Committee CEN/TC 121 "Welding" the secretariat of which is held by DIN.

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 2011, and conflicting national standards shall be withdrawn at the latest by September 2011.

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 ISO 544:2003.

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, Croatia, 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.

Endorsement notice

The text of ISO 544:2011 has been approved by CEN as a EN ISO 544:2011 without any modification.

Welding consumables — Technical delivery conditions for filler materials and fluxes — Type of product, dimensions, tolerances and markings

1 Scope

This International Standard specifies technical delivery conditions for filler materials and fluxes for fusion welding.

This International Standard does not apply to other auxiliary materials such as shielding gases.

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 14174, *Welding consumables — Fluxes for submerged arc welding and electroslag welding — Classification*¹⁾

ISO 14344, *Welding consumables — Procurement of filler materials and fluxes*

ISO 80000-1:2009, *Quantities and units — Part 1: General*

3 Product type and welding process

The types of products covered by this International Standard and the welding process(es) in which they are used are listed in Table 1.

NOTE The corresponding reference numbers for each welding process in accordance with ISO 4063:2009^[1] are given for information.

4 Dimensions and tolerances

4.1 Solid wires and solid wire electrodes, tubular cored wires and tubular cored electrodes, solid and tubular cored rods and covered electrodes

Dimensions and tolerances for solid wires and solid wire electrodes, tubular cored wires and tubular cored electrodes, solid and tubular cored rods and covered electrodes are given in Table 2.

1) To be published. (Revision of ISO 14174:2004)

Table 1 — Product type and welding process

Product type	Welding process(es) ^a
Cored strip electrode	EG, ES, S
Covered electrode	E
Solid rod	W, O, P
Solid strip electrode	ES, S
Solid wire	W, P, L, EB
Solid wire electrode	EG, ES, G, S
Tubular cored rod	W, O, P
Tubular cored wire	L, W
Tubular cored electrode	EG, ES, P, S, T
Thin foil	L, EB
<p>^a The corresponding reference numbers for each welding process in accordance with ISO 4063:2009^[1] are:</p> <ul style="list-style-type: none"> — E Manual metal arc welding (111); — EB Electron beam welding (51); — EG Electrode gas welding (73); — ES Electroslag welding (72); — G MIG/MAG welding with solid wire electrode (131, 135); — L Laser welding (52); — O Oxyfuel gas welding (31); — P Plasma arc welding (15); — S Submerged arc welding (12); — T Metal arc welding with tubular cored electrode with a gas shield (132, 133, 136 and 138) or without a gas shield (114); — W Gas tungsten arc welding (14). 	

4.2 Solid strip electrodes

Dimensions and tolerances for solid strip electrodes are given in Table 3.

4.3 Cored strip electrodes and thin foils

Dimensions and tolerances for cored strip electrodes and thin foils shall be in accordance with the relevant application standard.

Table 2 — Dimensions and tolerances for wires, rods, and covered electrodes

Dimensions in millimetres

Nominal diameter	Solid wires and solid wire electrodes ^a		Tubular cored wires and tubular cored electrodes ^a		Solid and tubular cored rods ^a			Covered electrodes ^{ab}				
	S, ES, EG		T, S, EG		Diameter tolerance	Length	Diameter tolerance	E				
	G, W, L, EB	Diameter tolerance	Diameter tolerance	Diameter tolerance				Diameter of core wire	Diameter tolerance	Length	Length tolerance	
0,5	+0,01	—	—	—	—	—	—	—	—	—	—	—
0,6	-0,03											
0,8	—	—	+0,02 -0,05	—	—	—	—	—	—	—	—	—
0,9												
1,0	—	—	+0,02 -0,05	—	—	—	—	—	—	—	—	—
1,2												
1,4	+0,01 -0,04	±0,04	+0,02 -0,06	—	500 ≤ l < 1 000	±0,1	—	—	—	—	—	—
1,6												
1,8	+0,01 -0,07	±0,04	+0,02 -0,06	—	500 ≤ l < 1 000	±0,1	—	—	—	—	—	—
2,0												
2,4	+0,01 -0,07	±0,06	+0,02 -0,07	—	—	—	—	—	—	—	—	—
2,5												
2,8	+0,01 -0,07	±0,06	+0,02 -0,07	—	—	—	—	—	—	—	—	—
3,0												
3,2	—	±0,06	+0,02 -0,08	—	—	—	—	—	—	—	—	—
4,0												
5,0	—	±0,06	+0,02 -0,08	—	—	—	—	—	—	—	—	—
6,0												
8,0	—	±0,06	+0,02 -0,08	—	—	±0,1	—	—	—	—	—	—

^a Other dimensions may be agreed. For intermediate dimensions, tolerances given in this table shall be used.

^b Dimensions for the core wire.

^c For special cases (e.g. gravity welding), length, l < 1 000 mm.