This is a free page sample. Access the full version online.

NSAI Standards

Irish Standard
I.S. EN 13100-1:2017

Non destructive testing of welded joints of thermoplastics semi-finished products - Part 1: Visual examination

© CEN 2017 No copying without NSAI permission except as permitted by copyright law.

This is a free page sample. Access the full version online.

I.S. EN 13100-1:2017

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:	*Published:*
EN 13100-1:2017	2017-05-24

This document was published under the authority of the NSAI and comes into effect on: 2017-06-11	ICS number: 25.160.40 NOTE: If blank see CEN/CENELEC cover page

NSAI 1 Swift Square, Northwood, Santry Dublin 9	T +353 1 807 3800 F +353 1 807 3838 E standards@nsai.ie W NSAI.ie	Sales: T +353 1 857 6730 F +353 1 857 6729 W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

National Foreword

I.S. EN 13100-1:2017 is the adopted Irish version of the European Document EN 13100-1:2017, Non destructive testing of welded joints of thermoplastics semi-finished products - Part 1: Visual examination

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This is a free page sample. Access the full version online.

This page is intentionally left blank

This is a free page sample. Access the full version online.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13100-1

May 2017

ICS 25.160.40

Supersedes EN 13100-1:1999

English Version

Non destructive testing of welded joints of thermoplastics semi-finished products - Part 1: Visual examination

Contrôle non destructif des assemblages soudés sur produits semi-finis en thermoplastiques - Partie 1 : Contrôle visuel

Zerstörungsfreie Prüfung von Schweißverbindungen an Halbzeugen aus thermoplastischen Kunststoffen - Teil 1: Sichtprüfung

This European Standard was approved by CEN on 10 March 2017.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2017 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN 13100-1:2017 E

This is a free page sample. Access the full version online.

Contents

Page

European foreword 3
1 Scope 4
2 Normative references 4
3 Test conditions and equipment 4
4 Personnel 4
5 Visual examination 4
6 Test report 6
Bibliography 7

This is a free page sample. Access the full version online.

European foreword

This document (EN 13100-1:2017) has been prepared by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by NBN.

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 November 2017, and conflicting national standards shall be withdrawn at the latest by November 2017.

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.

This document supersedes EN 13100-1:1999.

EN 13100, "*Non destructive testing of welded joints of thermoplastics semi-finished products*", is currently composed with the following parts:

— *Part 1: Visual examination*;

— *Part 2: X-ray radiographic testing*;

— *Part 3: Ultrasonic testing*;

— *Part 4: High voltage testing*.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

This is a free page sample. Access the full version online.

1 Scope

This European standard covers the visual examination of welds in thermoplastic materials. It may also be applied to visual testing of the joint prior to and during the welding.

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 14728, *Imperfections in thermoplastic welds - Classification*

EN 16296, *Imperfections in thermoplastics welded joints - Quality levels*

EN ISO 17637:2016, *Non-destructive testing of welds — Visual testing of fusion-welded joints (ISO 17637:2016)*

EN ISO 17659, *Welding - Multilingual terms for welded joints with illustrations (ISO 17659)*

3 Test conditions and equipment

The illuminance at the surface, shall be a minimum of 350 lx, 500 lx is recommended.

For direct visual examination of welds, access shall be sufficient to allow the eye to be placed within a distance of 600 mm from the weld, around the whole weld and the viewing angle shall not be less than 30°.

Remote visual examination of welds using mirrors, boroscopes, fibre optics or cameras shall be considered as additional requirements and shall be specified by an application standard or by agreement between the contracting parties.

If a good contrast and relief effect between imperfections and background is required, an additional light source can be used.

The equipment (e.g.: gauges, callipers) used for the dimensional check of the weld shall ensure the necessary precision level, in accordance with the applicable acceptance criteria.

Examples of examination equipment are given in EN ISO 17637:2016, Annex A.

4 Personnel

Visual examination of welds and the evaluation of results for final acceptance should be performed by personnel qualified and familiar with the relevant standards, rules, specifications and the welding procedure [1] used.

It is recommended that personnel should be qualified in accordance with EN ISO 9712 or an equivalent standard at an appropriate level in the relevant industry sector.

5 Visual examination

5.1 General

The examination is normally performed on welds in the as-welded condition; however, for example when required by an application standard or by agreement between the contracting parties, the examination may be also carried out at other stages during the welding process, such as for checking

SAI GLOBAL

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