SLOVENSKI STANDARD

SIST EN ISO 13916

prva izdaja
november 1998

Varjenje - Navodilo za merjenje temperature predgrevanja, medvarkovne temperature in temperature dogrevanja (prevzet standard EN ISO 13916:1996 z metodo platnice)

Welding - Guidance for the measurement of preheating temperature, interpass temperature and preheat maintenance temperature (ISO 13916:1996)

Soudage - Lignes directrices pour le mesurage de la température de préchauffage, de la température entre passes et de la température de maintien du préchauffage (ISO 13916:1996)

Schweißen - Anleitung zur Messung der Vorwärm-, Zwischenlagen- und Haltetemperatur (ISO 13916:1996)

Deskriptorji: varjenje, talilno varjenje, varjenci, toplotno vplivano področje, temperatura, meritve temperature

ICS 25.160.10

Referenčna številka
SIST EN ISO 13916:1998 ((sl),de)

Nadaljevanje na straneh II do III in od 1 do 6

NACIONALNI UVOD

Standard SIST EN ISO 13916 ((sl),de), Varjenje - Navodilo za merjenje temperature predgrevanja, medvarkovne temperature in temperature dogrevanja, prva izdaja, 1998, ima status slovenskega standarda in je z metodo platnice prevzet evropski standard EN ISO 13916 (de), Schweißen - Anleitung zur Messung der Vorwärm-, Zwischenlagen- und Haltetemperatur (ISO 13916:1996), 1996-08-00.

NACIONALNI PREDGOVOR

Evropski standard EN ISO 13916:1996 je pripravil tehnični odbor Evropske organizacije za standardizacijo CEN/TC 121 Varjenje.

Pripravo tega standarda sta CEN poverila Evropska komisija in Evropsko združenje za prosto trgovino. Ta evropski standard ustreza bistvenim zahtevam evropske direktive 97/23/EEC.

Odločitev za prevzem tega standarda po metodi platnice je dne 1998-09-30 sprejel tehnični odbor USM/TC VAR Varjenje.

Ta slovenski standard je dne 1998-10-12 odobril direktor USM.

OPOMBI

- Povsod, kjer se v besedilu standarda uporablja izraz “evropski standard”, v SIST EN ISO 13916:1998 to pomeni “slovenski standard”.
- Nacionalni uvod in nacionalni predgovor nista sestavni del standarda.

VSEBINA **Stran**

Po mnenju Ministrstva za informiranje Republike Slovenije z dne 18. februarja 1996, štev. 23/96-92, spada ta publikacija med proizvode informativne narave iz 13. točke tarifne številke 3, za katere se plačuje 5-odstotni prometni davek.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 13916

August 1996

ICS 25.160.00

Descriptors: see ISO document

English version

Welding - Guidance on the measurement of preheating temperature, interpass temperature and preheat maintenance temperature (ISO 13916:1996)

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This European Standard was approved by CEN on 1996-06-20. 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 Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart,36 B-1050 Brussels

Content

Foreword

The text of EN ISO 13916:1996 has been prepared by Technical Committee CEN/TC 121 "Welding", the secretariat of which is held by DS, in collaboration with Technical Committee ISO/TC 44 "Welding and allied processes".

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 February 1997, and conflicting national standards shall be withdrawn at the latest by February 1997.

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

1 Scope

This standard specifies requirements for the measurement of preheating temperature, interpass temperature and preheat maintenance temperature for fusion welding. This standard may also be applied as appropriate in the case of other welding processes. This standard does not cover the measurement of post weld heat treatment temperatures.

2 Definitions

For the purposes of this standard the following definitions apply:

2.1 preheating temperature (T_p): the temperature of the workpiece in the weld zone immediately prior to any welding operation. It is normally expressed as a minimum and is usually equal to the minimum interpass temperature.

2.2 interpass temperature (T_i): the temperature in a multi-run weld and adjacent parent metal immediately prior to the application of the next run. It is normally expressed as a maximum temperature.

2.3 preheat maintenance temperature(T_m): the minimum temperature in the weld zone which shall be maintained if welding is interrupted.

3 Requirements

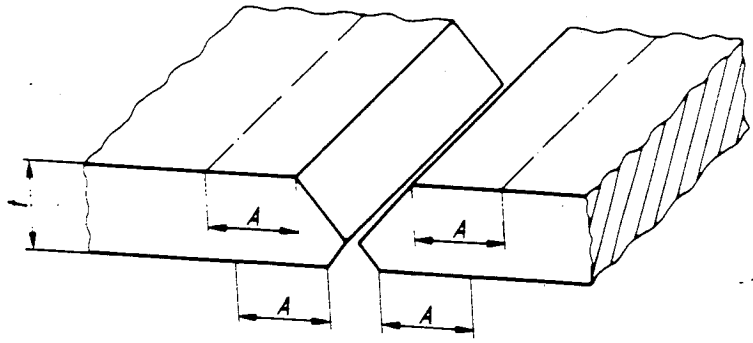
3.1 Point of measurement

The temperature measurement shall normally be made on the surface of the workpiece facing the welder, at a distance of A = 4 x t, but not more than 50 mm, from the longitudinal edge of the groove (see figure 1). This shall apply for workpieces thickness t not exceeding 50 mm in the weld.

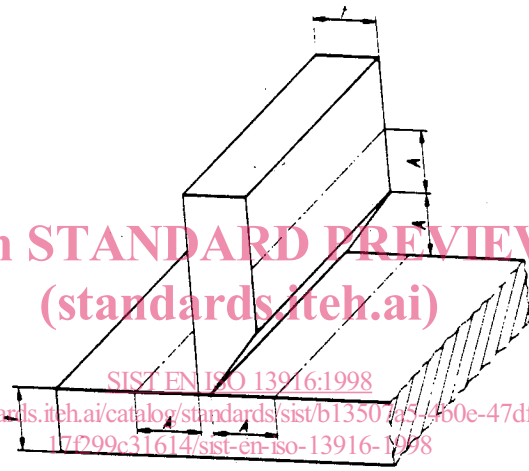
When the thickness exceeds 50 mm, the required temperature shall exist in the parent metal for a distance of at least 75 mm or as otherwise agreed in any direction from the joint preparation. Where practicable, the temperature shall be measured on the face opposite to that being heated. Otherwise, the temperature shall be confirmed on the heated face at a time after removal of the heat source related to parent metal thickness to allow for temperature equalization. Where fixed permanent heaters are in use and there is no access to the reverse face for temperature measurement, readings shall be taken on the exposed parent metal surface immediately adjacent to the weld preparation. The time allowed for the temperature equalization shall be of the order of 2 min for each 25 mm of parent metal thickness.

Interpass temperature shall be measured on the weld metal or the immediately adjacent parent metal.

Dimensions in mm



a) butt joint



b) fillet joint

$t \leq 50$: $A = 4 \times t$, max. 50 mm
$t > 50$: $A = 75$

Figure 1 - Distance between points of measurement

3.2 Time of measurement

Interpass temperature shall be measured in the weld area immediately before passage of the arc.

If the preheat maintenance temperature is specified it shall be monitored during the period of welding interruption.