

# SLOVENSKI STANDARD

## SIST EN 462-4:1996

01-januar-1996

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### Neporušitveno preskušanje - Kakovost radiografske slike - 4. del: Eksperimentalno ugotavljanje stopnje kakovosti slike in tabel kakovosti slike

Non-destructive testing - Image quality of radiographs - Part 4: Experimental evaluation of image quality values and image quality tables

Zerstörungsfreie Prüfung - Bildgüte von Durchstrahlungsaufnahmen - Teil 4: Experimentelle Ermittlung von Bildgütezahlen und Bildgütetabellen

Essais non destructifs - Qualité d'image des radiogrammes - Partie 4: Evaluation expérimentale des indices de qualité d'image et des tables de qualité d'image

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Ta slovenski standard je istoveten z: **EN 462-4:1994**

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#### **ICS:**

19.100          Neporušitveno preskušanje          Non-destructive testing

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EUROPEAN STANDARD

EN 462-4

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 1994

ICS 19.100

Descriptors: non destructive tests, industrial radiography, photographic images, quality, image quality indicators

English version

**Non destructive testing - Image quality of  
radiographs - Part 4: Experimental evaluation of  
image quality values and image quality tables**

Essais non destructifs - Qualité d'image des  
radiogrammes - Partie 4: Evaluation  
expérimentale des indices de qualité d'image et  
des tables de qualité d'image

Zerstörungsfreie Prüfung - Bildgüte von  
Durchstrahlungsaufnahmen - Teil 4:  
Experimentelle Ermittlung von Bildgütezahlen  
und Bildgütetabellen

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This European Standard was approved by CEN on 1994-11-10. 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

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## Foreword

This European standard has been produced by CEN/TC 138 "Non-destructive testing", the secretariat of which is held by the French Association for Standardization (AFNOR).

EN 462-4 is a Part of a series of European Standards with the same number; the other Parts are the following:

- EN 462-1 Non-destructive testing - Image quality of radiographs - Part 1: Image quality indicators (wire type) - Determination of image quality value
- EN 462-2 Non-destructive testing - Image quality of radiographs - Part 2: Image quality indicators (step/hole type) - Determination of image quality value
- EN 462-3 Non-destructive testing - Image quality of radiographs - Part 3: Image quality classes for ferrous metals
- EN 462-5 Non-destructive testing - Image quality of radiographs - Part 5: Image quality indicators (Duplex wire type) - Determination of total image unsharpness value

**STANDARD PREVIEW**  
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 May 1995, and conflicting national standards shall be withdrawn at the latest by May 1995.

According to the CEN/CENELEC Internal Regulations, 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, United Kingdom.

## 1 Scope

This standard gives instructions for the determination of image quality values and image quality tables.

If the IQI requirements from part 3 of this standard cannot be used, because, for example, the absorption coefficients of the IQI material and the inspected material differ by more than 30 %, test exposures are necessary to determine acceptance of image quality values. The image quality values achieved by the test exposures are required for all exposures made under the same radiographic conditions.

## 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 462-1 Non-destructive testing - Image quality of radiographs - Part 1: Image quality indicators (wire type), determination of image quality value
- EN 462-2 Non-destructive testing - Image quality of radiographs - Part 2: Image quality indicators (step/hole type), determination of image quality value
- EN 462-3 Non-destructive testing - Image quality of radiographs - Part 3: Image quality classes for ferrous metals

## 3 Definitions

For the purposes of this standard, the following definitions apply:

### 3.1 Image quality indicators (IQI)

See EN 462-1 and EN 462-2.

### 3.2 Image quality

See EN 462-1 and EN 462-2.

### 3.3 Image quality value

See EN 462-1 and EN 462-2.

### 3.4 Image quality table

Achieved image quality values versus the penetrated wall thickness (see clause 4).

#### 4 Experimental evaluation of image quality values

For the experimental determination of image quality values, the same radiographic conditions and IQI shall be used as specified for the subsequent examination.

Two test exposures shall be made under the specified conditions. If the image quality values read from these two exposures are identical, this value shall be accepted as the required image quality value. If the image quality values from the two test exposures are different, the procedure shall be repeated.

#### 5 Determination of image quality tables

If different wall thicknesses of the same material are radiographed, an image quality table shall be established. An example of the image quality values for different penetrated thicknesses according to clause 4 is shown in figure 1. The step curve below the experimental values defines the image quality values and penetrated thickness steps of the image quality table, for an example see table 1.

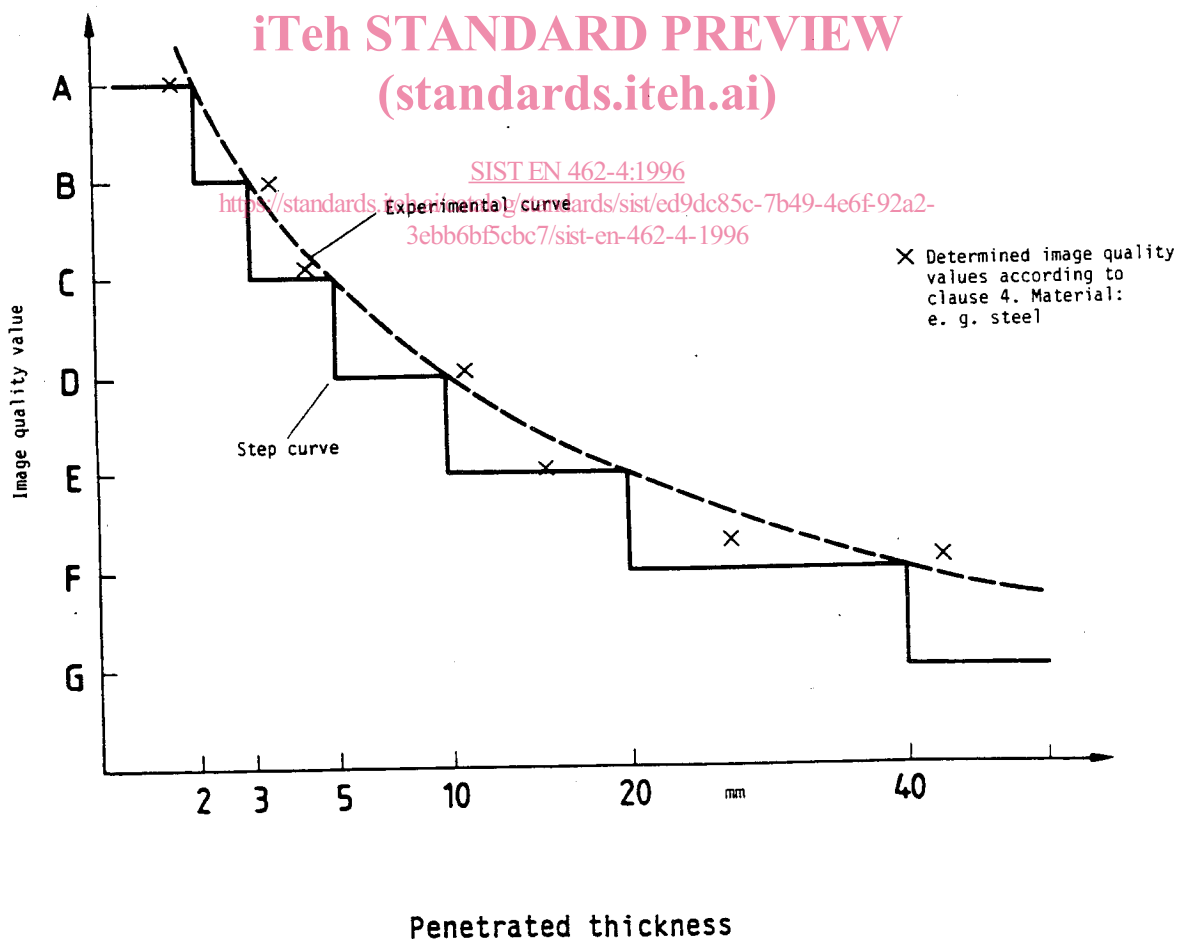


Figure 1: Example for the determination of an image quality table

Table 1: Example of an image quality table

Penetrated thickness w mm	image quality value
up to 2	A
above 2 to 3	B
above 3 to 5	C
above 5 to 10	D
above 10 to 20	E
above 20 to 40	F
above 40 (standards.iteh.ai)	G

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