



BSI Standards Publication

## **Non-destructive testing - Penetrant testing - Reference photographs and sizing of indications**

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## National foreword

This Published Document is the UK implementation of CEN/TS 17100:2017.

The UK participation in its preparation was entrusted to Technical Committee WEE/46, Non-destructive testing.

A list of organizations represented on this committee can be obtained on request to its secretary.

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

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**CEN/TS 17100**

September 2017

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English Version

**Non-destructive testing - Penetrant testing - Reference  
photographs and sizing of indications**

Essais non destructifs - Contrôle par ressuage et par  
magnétoscopie - Photographies de référence et  
dimensionnement des indications

Zerstörungsfreie Prüfung - Eindringprüfung -  
Referenzfotos und Dimensionierung von Anzeigen

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## **European foreword**

This document (CEN/TS 17100:2017) has been prepared by Technical Committee CEN/TC 138 “Non-destructive testing”, the secretariat of which is held by AFNOR.

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## **1 Scope**

This document specifies minimum requirements in order to obtain and reproduce photographs used as reference records relative to PT (penetrant testing) colour contrast and fluorescent indications. It also provides requirements for the monitoring of resolution when measurements are to be indirectly performed by recording.

## **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.

CEN/TR 16638:2014, *Non-destructive testing - Penetrant and magnetic particle testing using blue light*

EN ISO 3059, *Non-destructive testing - Penetrant testing and magnetic particle testing - Viewing conditions (ISO 3059)*

EN ISO 12706, *Non-destructive testing - Penetrant testing - Vocabulary (ISO 12706)*

ISO 12233, *Photography — Electronic still picture imaging — Resolution and spatial frequency responses*

ISO 18911, *Imaging materials — Processed safety photographic films — Storage practices*

## **3 Terms and definitions**

For the purposes of this document, the terms and definitions given in EN ISO 12706, ISO 12233, ISO 18911, CEN/TR 16638 and the following apply:

### **3.1**

#### **reference photograph**

approved record with sufficient sharpness and details showing all or part of PT indications used as a master document and the visual baseline

## **4 Safety precautions**

All relevant international, regional, national and local regulations including health and safety recommendations and particularly photobiological rating for lighting sources shall be taken into account.

## **5 General principles**

### **5.1 Purpose of a reference photograph**

A reference photograph is a representative record of an approved indication, obtained after a PT process. It can be used for indirect sizing of the indication. Precautions shall be taken for the monitoring of resolution.

The indication record shall not modify the true indication, shape, sharpness and dimensions.

The record shall reproduce the indication in a proper form.