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Non-destructive testing — Magnetic particle testing — Vocabulary

Essais non destructifs — Magnétoscopie — Vocabulaire

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Foreword

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ISO 12707 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 138, *Non-destructive testing*, in collaboration with ISO Technical Committee TC 135, *Non-destructive testing*, Subcommittee SC 2, *Surface methods*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition of ISO 12707 is based on, and constitutes a technical revision of, European Standard EN 1330-7:2005.

Non-destructive testing — Magnetic particle testing — Vocabulary

1 Scope

This International Standard defines general terms specifically associated with magnetic particle testing.

2 Terms and definitions

2.1
adjacent conductor technique
magnetization using a bar or cable close to, but isolated from the test surface

2.2
ampere turns
product of the number of turns of a coil and the current in amperes flowing through the coil

2.3
arcing strike
poor electrical contact causing burn damage

2.4
carrier liquid
liquid in which the *magnetic particles* (2.30) are suspended for the wet technique

2.5
central conductor
threaded conductor positioned in the centre of an aperture of the component

2.6
circular magnetization
continuous lines of force within a test piece produced by current flow or a conductor surrounded by the test piece

2.7
coil technique
magnetization using a flexible cable or a rigid coil to test all or a part of a component

2.8
coloured detection medium
detection medium for testing with visible light

2.9
concentrate
detection medium supplied in a form requiring dilution before use

2.10
conditioning agent
additive in water-based media used to improve their properties which may include wetting, antifoaming and corrosion inhibitors

2.11
constant current control
device to maintain the pre-set current

2.12
contact pad
replaceable pad usually copper braid, placed at contact points to improve electrical connection

2.13
continuous magnetization technique
technique where detection medium is applied during magnetization

2.14
contrast aid paint
thin coating or film applied to a surface to improve the visibility of indications using *coloured detection medium* (2.8)

2.15
current flow technique
magnetization by passing a current through a component

2.16
current generator
source of current for magnetization

2.17
detection medium
magnetic particles (2.30) suspended in a carrier liquid or in dry powder form, ready for use

2.18
dry powder technique
application of *magnetic particles* (2.30), air suspended in use

2.19
fixed installation
stationary equipment providing a magnetic field for testing of components

2.20
flexible coil technique
magnetization using a conductor wrapped closely around a component

2.21
fluorescent detection medium
detection medium that emits visible light when excited by a different radiation, usually UV-A radiation

2.22
flux indicator
magnetic flux shunting detector containing artificial discontinuities

2.23
fluorescent stability
capability of a detection medium to maintain fluorescent properties

2.24
induced current flow technique
current flow in a ring type component produced by making it the secondary of a transformer

2.25
lift test
functional check of portable electromagnets assessed by attractive force

2.26
magnetic bench
stationary equipment for general applications employing *magnetic flow techniques* (2.28) and/or *current flow techniques* (2.15)