TECHNICAL SPECIFICATION

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Determination of the film thickness of coatings using an ultrasonic gage

Détermination de l'épaisseur du feuil de revêtement par mesurage ultrasons

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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Foreword

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The committee responsible for this document is ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

Determination of the film thickness of coatings using an ultrasonic gage

1 Scope

This Technical Specification describes a method for determining the film thickness of coatings on metallic and non-metallic substrates using an ultrasonic gauge.

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.

ISO 4618, *Paints and varnishes — Terms and definitions*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4618 and the following apply.

3.1
ultrasonic wave
acoustic wave having a frequency higher than the range of audibility of the human ear, generally taken as higher than 20 kHz

[SOURCE: EN 1330-4:2010, 3.1.1]

3.2
longitudinal wave
compressional wave
wave in which the particle motion in a material is in the same direction as the propagation of the wave

[SOURCE: EN 1330-4:2010, 2.3.1]

3.3
echo
ultrasonic pulse reflected to the probe

[SOURCE: EN 1330-4:2010, 5.5.2]

3.4
echo height
echo amplitude
height of an *echo* (3.3) indication on the screen

[SOURCE: EN 1330-4:2010, 5.5.5]

3.5
ultrasonic impulse
short-lived ultrasound signal

3.6
ultrasonic sensor
ultrasonic probe
device for sending and receiving *ultrasonic waves* (3.1), mostly based on piezoelectric materials