

<b>STN</b>	<b>Meranie strednej drsnosti Ra a počtu výstupkov RPc na plochých kovových výrobkoch.</b>	<b>STN EN 10049</b>  42 0493
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Measurement of roughness average Ra and peak count RPc on metallic flat products

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Obsahuje: EN 10049:2013

Oznámením tejto normy sa ruší  
STN EN 10049 (42 0493) z apríla 2006

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English Version

## Measurement of roughness average $R_a$ and peak count $RP_c$ on metallic flat products

Mesure de la rugosité moyenne  $R_a$  et du nombre de pics  $RP_c$  sur les produits plats métalliques

Messung des arithmetischen Mittenrauwertes  $R_a$  und der Spitzenzahl  $RP_c$  an metallischen Flacherzeugnissen

This European Standard was approved by CEN on 29 August 2013.

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This European Standard exists 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 CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN 10049:2013) has been prepared by Technical Committee ECISS/TC 109 “Flat products for cold working - Qualities, dimensions, tolerances and specific tests”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by May 2014, and conflicting national standards shall be withdrawn at the latest by May 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 10049:2005.

The whole document was technically revised.

The European Committee for Iron and Steel Standardization (ECISS) has given Technical Committee 109 (Secretariat France) the task to prepare a European Standard on the measuring of roughness as a revision of EN 10049:2005.

The reason for the existence of this European Standard is that general roughness measurement rules as described in ISO standards (see Clause 2) are not practical for metallic flat products for the following reasons:

- the practical use of EN ISO 4288 is not convenient for flat products, because the choice of the cut-off ( $\lambda c$ ) is dependent on the  $Ra$  to be measured; the product range is quite wide and the transition point for  $Ra$  is  $2 \mu\text{m}$  in EN ISO 4288 (EN ISO stipulates a cut-off ( $\lambda c$ ) of  $0,8 \text{ mm}$  for  $Ra < 2\mu\text{m}$  and a cut-off ( $\lambda c$ ) of  $2,5 \text{ mm}$  for  $Ra > 2\mu\text{m}$ );
- in the automotive industry, the use of a cut-off ( $\lambda c$ ) of  $2,5 \text{ mm}$  is based on requirements related to paint appearance.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard defines the measurement conditions for surface roughness parameters of metallic flat products, both uncoated (cold and hot rolled pickled steel) and coated with metallic coatings (e.g. zinc, aluminium, tin, chromium) (see 3.1).

## 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.

EN ISO 5436-1, *Geometrical Product Specifications (GPS) — Surface texture: Profile method; Measurement standards — Part 1: Material measures (ISO 5436-1)*

EN ISO 16610-21, *Geometrical product specifications (GPS) — Filtration — Part 21: Linear profile filters: Gaussian filters (ISO 16610-21)*

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