

Measurement of roughness average Ra and peak count RPc on metallic flat products

The European Standard EN 10049:2005 has the status of a
British Standard

ICS 17.040.20

National foreword

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The UK participation in its preparation was entrusted to Technical Committee ISE/10, Flat rolled steels products, which has the responsibility to:

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- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep UK interests informed;
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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 12, an inside back cover and a back cover.

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English Version

Measurement of roughness average Ra and peak count RPc on metallic flat products

Mesure de la rugosité moyenne Ra et du nombre de pics
RPc sur les produits plats métalliques

Messung des arithmetischen Mittenrauwertes Ra und der
Spitzenzahl RPc an metallischen Flacherzeugnissen

This European Standard was approved by CEN on 30 September 2005.

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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 Central Secretariat has the same status as the official versions.

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Foreword

This European Standard (EN 10049:2005) has been prepared by Technical Committee ECISS/TC 13 “Flat products for cold working - Qualities, dimensions, tolerances and specific tests”, the secretariat of which is held by IBN.

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of an identical text or by endorsement, at the latest by May 2006, and conflicting national standards shall be withdrawn at the latest by May 2006.

The European Committee for Iron and Steel Standardization (ECISS) had charged the Technical Committee 13 (Secretariat Belgium) with preparing a European Standard on the measuring of roughness as a revision of Euronorm 49.

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 (λ_c) is dependent on the R_a to be measured; the product range is quite wide and the transition point for R_a is $2\text{ }\mu\text{m}$ in EN ISO 4288 (EN ISO stipulates a cut-off (λ_c) of $0,8\text{ mm}$ for $R_a < 2\text{ }\mu\text{m}$ and a cut-off (λ_c) of $2,5\text{ mm}$ for $R_a > 2\text{ }\mu\text{m}$);
- in the automotive industry, the use of a cut-off (λ_c) of $2,5\text{ mm}$ is based on requirements related to paint appearance.

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