DRAFT AMENDMENT ISO 4287:1997/DAM 2

ISO/TC **213** Secretariat: **DS**

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Geometrical Product Specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters

AMENDMENT 2: Parameters Xsm and Xc

Spécification géométrique des produits (GPS) — État de surface: Méthode du profil — Termes, définitions et paramètres d'état de surface

AMENDEMENT 2

ICS 81.040.17; 17.040.20

ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO-lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five-month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

Amendment 2 to ISO 4287:1997 was prepared by Technical Committee ISO/TC 213, *Dimensional and geometrical product specifications and verification* and by Technical Committee CEN/TC 290, *Dimensional and geometrical product specification and verification* in collaboration.

Introduction

This Amendment 2 to International Standard ISO 4287:1997 is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO/TR 14638). It influences the chain link 2 of the chains of standards on surface texture.

Amendment 2 to International Standard ISO 4287:1997 defines the parameters *XSm* and *Xc* for surface texture, profile method.

Geometrical product specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters AMENDMENT 2: Parameters Xsm and Xc

Page 5, clause 3.1.9
Replace with:

3.1.9
sampling length
*l*p, *l*r, *l*w
length in the direction of the X-axis used for identifying the irregularities characterizing the profile under evaluation

NOTE The sampling length for the roughness profile, *l*r, is numerically equal to the wavelength of the profile filter λc. The sampling length for the waviness profile, *l*w, is numerically equal to the profile filter λf when present. If λf is not specified (one-sided waviness) then the sampling length for the waviness profile, *l*w, is numerically equal to the evaluation length. The sampling length for primary profile, *l*p, is equal to the evaluation length.

Page 6, clause 3.2.6
Replace with:

3.2.6
height and/or spacing discrimination

3.2.6.1
height discrimination
minimum height of profile peaks and minimum height of profile valleys of the assessed profile which should be taken into account

NOTE The minimum height of the profile peaks and the minimum height of the profile valleys are usually specified as a percentage of *P*z for calculating P-Profile parameters, *W*z for calculating W-Profile parameters, *R*z for calculating R-Profile parameters. Instead of *P*z, *W*z or *R*z other amplitude parameters can be used.

3.2.6.2
spacing discrimination
minimum spacing of profile peaks or profile valleys of the assessed profile which should be taken into account

NOTE The minimum spacing is usually specified as a percentage of the sampling length.

Page 7, clause 3.2.7
Replace with:

3.2.7
profile element
profile peak followed by a profile valley or profile valley followed by a profile peak within the evaluation length

NOTE 1 Profile elements are calculated from the beginning to the end of the evaluation length and vice versa.

NOTE 2 The positive or negative portion of the assessed profile at the beginning or end of the evaluation length shall not be considered as a profile peak or as a profile valley.

Page 12, clause 4.1.4
Replace with:

4.1.4
mean height of the profile elements
*P*c, *R*c, *W*c
mean value of the profile element heights *Z*t within the evaluation length

$$P\mathrm{c},\ W\mathrm{c},\ R\mathrm{c} = \frac{1}{m} \times \sum_{i=1}^{m} Z\mathrm{t}_i$$

See figure 9.

NOTE The parameters *P*c, *W*c, *R*c require height and spacing discrimination. The minimum height of the profile peaks and the minimum height of the profile valleys is 10% of *P*z for *P*c, 10% of *W*z for *W*c and 10% of *R*z for *R*c. The minimum spacing of profile peaks and the minimum spacing of the profile valleys is 1% of the sampling length.

Page 15, clause 4.3.1
Replace with:

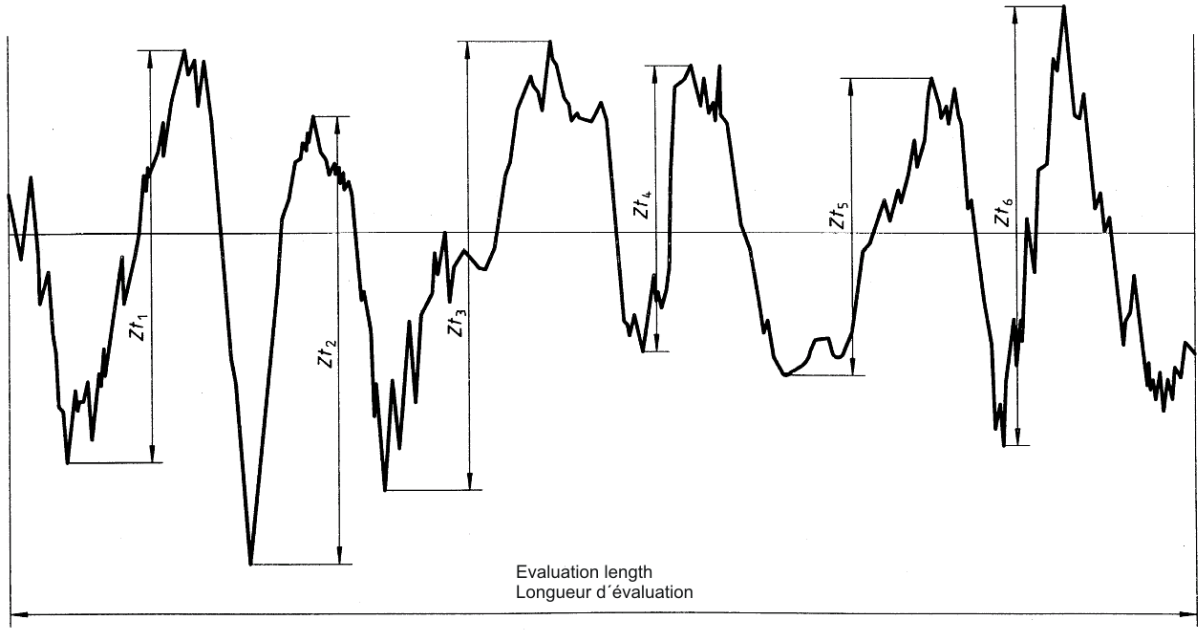
4.3.1
mean width of the profile elements
*PS*m, *RS*m, *WS*m
mean value of the profile element widths *X*s within the evaluation length

$$PS\mathrm{m},\ WS\mathrm{m},\ RS\mathrm{m} = \frac{1}{m} \times \sum_{i=1}^{m} X\mathrm{s}_i$$

See figure 10.

NOTE The parameters *PS*m, *WS*m, *RS*m require height and spacing discrimination. The minimum height of the profile peaks and the minimum height of the profile valleys is 10% of *P*z for *PS*m, 10% of *W*z for *WS*m and 10% of *R*z for *RS*m. The minimum spacing of profile peaks and the minimum spacing of the profile valleys is 1% of the sampling length.

Page 13, Figure 9
Replace with:



Page 15, Figure 10
Replace with: