

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 468

SURFACE ROUGHNESS

1st EDITION

February 1966

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BRIEF HISTORY

The ISO Recommendation R 468, *Surface Roughness*, was drawn up by Technical Committee ISO/TC 57, *Surface Finish*, the Secretariat of which is held by the Gosudarstvennyj Komitet Standartov, Mer i Izmeritel'nyh Priborov pri Sovete Ministrov SSSR (GOST).

Work on this question by the Technical Committee began in 1954 and led, in 1957, to the adoption of a Draft ISO Recommendation.

This first Draft ISO Recommendation (No. 221) was circulated to all the ISO Member Bodies for enquiry in September 1958. As the results of this consultation were not considered satisfactory, the Technical Committee presented a second Draft ISO Recommendation, which was circulated to all the Member Bodies in April 1962 and which was approved by the following Member Bodies:

Austria	Greece	Poland
Belgium	Hungary	Republic of South Africa
Brazil	India	Romania
Bulgaria	Israël	Switzerland
Burma	Italy	U.S.A.
Czechoslovakia	Mexico	U.S.S.R.
Denmark	New Zealand	Yugoslavia

Eight Member Bodies opposed the approval of the Draft:

Canada	Japan	U.A.R.
France	Netherlands	United Kingdom
Germany	Sweden	

The second Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in February 1966, to accept it as an ISO RECOMMENDATION.

SURFACE ROUGHNESS

INTRODUCTION

The purpose of this ISO Recommendation is:

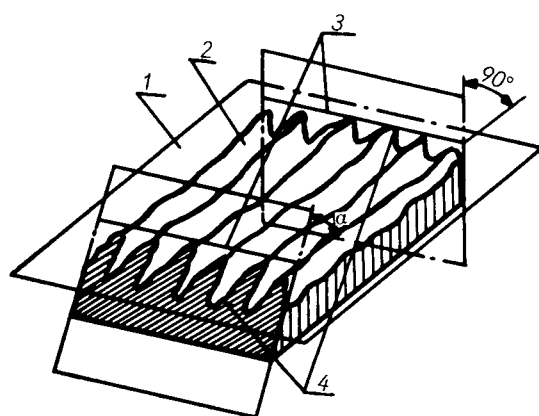
- to define the basic terms relating to surface roughness (section 1);
- to give a method of quantitatively evaluating the roughness of the effective profile of a surface in accordance with the mean line system M (section 2).

Definitions and parameters in other reference systems, in particular the envelope line system E*, will be the subject of further sections to be published subsequently in the form of addenda to the present ISO Recommendation.

1. GENERAL TERMS

- 1.1 *Real surface.* The surface limiting the body, separating it from the surrounding space.
- 1.2 *Geometrical surface.* The surface determined by the design or by the process of manufacture, neglecting errors of form and surface roughness (see Fig. 1).
- NOTE. — The terms “ideal geometrical surface”, “design form” and “nominal surface” are used in certain national standards with the sense of “geometrical surface”, as defined above.
- 1.3 *Effective surface.* The close representation of a real surface obtained by instrumental means (see Fig. 1).

NOTE. — The term “measured surface” is used in certain national standards with the sense of “effective surface”, as defined above.



- 1. Geometrical surface
- 2. Effective surface
- 3. Geometrical profile
- 4. Effective profile

FIG. 1

* The difference between the M and E systems lies in reference being made to two distinct lines for measuring the ordinates characterizing the roughness of each point of the surface profile, the criteria of roughness being defined with reference to the mean line in the M system and with reference to the envelope line in the E system.