



ISO 16610-21

**Geometrical product specifications
(GPS) — Filtration —**

Part 21:
Linear profile filters: Gaussian filters

*Spécification géométrique des produits (GPS) — Filtrage —
Partie 21: Filtres de profil linéaires: Filtres gaussiens*

**Second edition
2025-01**



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This second edition cancels and replaces the first edition (ISO 16610-21:2011), which has been technically revised.

The main changes are as follows:

- providing implementation details for open and closed profiles,
- providing the treatment of end effects.

A list of all parts in the ISO 16610 series can be found on the ISO website.

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This document is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO 14638). It influences chain links C and E in the GPS matrix structure.

The ISO GPS matrix model given in ISO 14638 gives an overview of the ISO GPS system of which this document is a part. The fundamental rules of ISO GPS given in ISO 8015 apply to this document and the default decision rules given in ISO 14253-1 apply to the specifications made in accordance with this document, unless otherwise indicated.

For more information on the relationship of this document to the filtration matrix model, see [Annex C](#).

For more detailed information on the relation of this document to other standards and the GPS matrix model, see [Annex D](#).

This document develops the terminology and concepts of linear Gaussian filters for surface profiles. Linear Gaussian filters for surface profiles have a transmission of 50 % for sinusoidal surface profiles with wavelengths equal to the cut-off wavelength. It separates the large- and small-scale lateral components of surface profiles in such a way that the surface profiles can be reconstructed without altering.