

## **Geometrical product specifications (GPS) - Series of angles and slopes on prisms**

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## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 2538:2003 sisaldab Euroopa standardi EN ISO 2538:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 06.06.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 2538:2003 consists of the English text of the European standard EN ISO 2538:2003.</p> <p>This document is endorsed on 06.06.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> This international standard specifies two series of prism angles from 120 degrees to 30' and a series of prism slopes from 1:10 to 1:500 for general mechanical engineering purposes</p>	<p><b>Scope:</b> This international standard specifies two series of prism angles from 120 degrees to 30' and a series of prism slopes from 1:10 to 1:500 for general mechanical engineering purposes</p>
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**ICS** 17.040.01

**Võtmesõnad:** defin, dimensional series, fall (roof), fits, fittings, geometrical product specification, gps, keys (engineering), keys-and keyways, measurement, pipe fittings, prisms, prisms (optical), product specifications, roofs, slopes, tolerances, tolerances (measurement)

**English version**

Geometrical product specifications (GPS)  
**Series of angles and slopes on prisms**  
(ISO 2538 : 1998)

Spécification géométrique des  
produits (GPS) – Séries d'angles et  
d'inclinaisons de prismes  
(ISO 2538 : 1998)

Geometrische Produktspezifikation  
(GPS) – Reihen von Winkeln und  
Neigungen an Prismen  
(ISO 2538 : 1998)

This European Standard was approved by CEN on 2002-11-15.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Management Centre or to any CEN member.

The European Standards exist 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland, and the United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

**Management Centre: rue de Stassart 36, B-1050 Brussels**

## Foreword

International Standard

ISO 2538 : 1998 Geometrical product specifications (GPS) – Series of angles and slopes on prisms, which was prepared by ISO/TC 213 'Dimensional and geometrical product specifications and verification' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 290 'Dimensional and geometrical product specification and verification', the Secretariat of which is held by AFNOR, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by August 2003 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland, and the United Kingdom.

## Endorsement notice

The text of the International Standard ISO 2538 : 1998 was approved by CEN as a European Standard without any modification.

## Introduction

This International Standard is a geometrical product specification (GPS) standard and is to be regarded as a general GPS standard (see ISO/TR 14638). It influences chain links 1 and 2 of the chain of standards on angle.

For more detailed information of the relation of this International Standard to other standards and the GPS matrix model, see annex A.

## 1 Scope

This International Standard specifies two series of prism angles from  $120^\circ$  to  $0^\circ 30'$  and a series of prism slopes from 1:10 to 1:500, for general mechanical engineering purposes.

## 2 Definitions

For the purposes of this International Standard, the following definitions apply.

### 2.1

#### **prism**

part of a piece which is limited by two intersecting planes

See figure 1.

NOTE — Both planes are termed "prism planes". When these are intended for fits, they are termed "mating planes for the prism".

### 2.2

#### **multiple prism**

part of a piece which is limited by several pairs of intersecting planes

See figure 2.

#### NOTES

- 1 A double prism is limited by two pairs of intersecting planes.
- 2 When the intersection of each pair of planes is a point, the multiple prism is a pyramid (see figure 3).

### 2.3

#### **wedge**

prism with a small angle

### 2.4

#### **slide prism**

#### **vee-block**

#### **dovetail**

typical prism with a large angle

NOTE — These special prisms are used, for example, as a slideway on machine tools (see figures 4 and 5).