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**ICS 83.080.20**

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EUROPEAN STANDARD

**EN 15860**

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2010

ICS 83.080.20

English Version

## Plastics - Thermoplastic semi-finished products for machining - Requirements and test methods

Plastiques - Produits semi-finis thermoplastiques pour usinage - Exigences et méthodes d'essai

Kunststoffe - Thermoplastische Halbzeuge für die spanende Verarbeitung - Anforderungen und Prüfmethoden

This European Standard was approved by CEN on 19 May 2010.

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## Foreword

This document (EN 15860:2010) has been prepared by Technical Committee CEN/TC 249 "Plastics", the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by December 2010, and conflicting national standards shall be withdrawn at the latest by December 2010.

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## 1 Scope

This European Standard specifies the requirements and associated test methods that apply to semi-finished products such as rods, hollow bars and plates made from thermoplastic materials. These semi-finished products are used predominantly for the manufacture of finished parts by means of machining.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 291:2008, *Plastics — Standard atmospheres for conditioning and testing (ISO 291:2008)*

EN ISO 306, *Plastics — Thermoplastic materials — Determination of Vicat softening temperature (VST) (ISO 306:2004)*

EN ISO 307, *Plastics — Polyamides — Determination of viscosity number (ISO 307:2007)*

EN ISO 527-1, *Plastics — Determination of tensile properties — Part 1: General principles (ISO 527-1:1993 including Corr. 1:1994)*

EN ISO 527-2:1996, *Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics (ISO 527-2:1993 including Corr. 1:1994)*

EN ISO 1043-1:2001, *Plastics — Symbols and abbreviated terms — Part 1: Basic polymers and their special characteristics (ISO 1043-1:2001)*

EN ISO 1133, *Plastics — Determination of the melt mass-flow rate (MFR) and the melt volume-flow rate (MVR) of thermoplastics (ISO 1133:2005)*

EN ISO 1183-1, *Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pyknometer method and titration method (ISO 1183-1:2004)*

EN ISO 1183-2, *Plastics — Methods for determining the density of non-cellular plastics — Part 2: Density gradient column method (ISO 1183-2:2004)*

EN ISO 2818, *Plastics — Preparation of test specimens by machining (ISO 2818:1994)*

EN ISO 10350-1, *Plastics — Acquisition and presentation of comparable single-point data — Part 1: Moulding materials (ISO 10350-1:2007)*

EN ISO 11357-1, *Plastics — Differential scanning calorimetry (DSC) — Part 1: General principles (ISO 11357-1:2009)*

ISO 1628-5, *Plastics — Determination of the viscosity of polymers in dilute solution using capillary viscometers — Part 5: Thermoplastic polyester (TP) homopolymers and copolymers*

ISO 11357-2, *Plastics — Differential scanning calorimetry (DSC) — Part 2: Determination of glass transition temperature*

ISO 11357-3, *Plastics — Differential scanning calorimetry (DSC) — Part 3: Determination of temperature and enthalpy of melting and crystallization*

ISO 15527:2007, *Plastics — Compression-moulded sheets of polyethylene (PE-UHMW, PE-HD) — Requirements and test methods*