



**NSAI**  
Standards

Irish Standard  
I.S. EN 59:2016

# Glass reinforced plastics - Determination of indentation hardness by means of a Barcol hardness tester

**I.S. EN 59:2016**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

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## National Foreword

I.S. EN 59:2016 is the adopted Irish version of the European Document EN 59:2016, Glass reinforced plastics - Determination of indentation hardness by means of a Barcol hardness tester

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EUROPEAN STANDARD

EN 59

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

## Glass reinforced plastics - Determination of indentation hardness by means of a Barcol hardness tester

Matières plastiques renforcées de verre -  
Détermination de la dureté par pénétration au moyen  
d'un appareil d'essai de dureté Barcol

Glasfaserverstärkte Kunststoffe - Bestimmung der  
Eindruckhärte mit einem Barcol-Härteprüfgerät

This European Standard was approved by CEN on 26 December 2015.

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This European Standard exists 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 CEN-CENELEC Management Centre has the same status as the official versions.

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## **European foreword**

This document (EN 59:2016) 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of an identical text or by endorsement, at the latest by August 2016, and conflicting national standards shall be withdrawn at the latest by August 2016.

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

This document supersedes EN 59:1977.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## EN 59:2016 (E)

### 1 Scope

This European Standard specifies a method for determining the indentation hardness of glass reinforced plastics materials by means of a Barcol hardness tester.

The Barcol hardness tester is a portable device which can be used with a stand. This method is suitable for testing the indentation hardness of individual test specimens or finished products for production control purposes.

### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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, *Plastics - Standard atmospheres for conditioning and testing (ISO 291)*

### 3 Principle

A specified indenter is forced into the test material under specified conditions and the depth of penetration measured.

### 4 Apparatus

#### 4.1 Barcol hardness tester

**4.1.1 Indenter**, formed from a hardened steel truncated cone to the shape shown in Figure 1. The dimensions and their tolerances of the indenter are given in Table 1. It shall fit into a hollow spindle and be held down by a spring.

**4.1.2 Presser foot**, intended to be placed on the test specimen, to the shape shown in Figure 1. The dimensions and their tolerances of the presser foot are given in Table 1.



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