

Irish Standard I.S. EN ISO 14629:2016

Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of flowability of ceramic powders (ISO 14629:2012)

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#### I.S. EN ISO 14629:2016

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#### **National Foreword**

I.S. EN ISO 14629:2016 is the adopted Irish version of the European Document EN ISO 14629:2016, Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of flowability of ceramic powders (ISO 14629:2012)

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## EUROPEAN STANDARD NORME EUROPÉENNE

## EN ISO 14629

## EUROPÄISCHE NORM

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ICS 81.060.30

Supersedes ENV 14312:2002

**English Version** 

# Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of flowability of ceramic powders (ISO 14629:2012)

Céramiques techniques - Détermination de l'aptitude à l'écoulement des poudres céramiques (ISO 14629:2012) Hochleistungskeramik - Bestimmung der Fließfähigkeit keramischer Pulver (ISO 14629:2012)

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EN ISO 14629:2016 (E)

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#### **European foreword**

The text of ISO 14629:2012 has been prepared by Technical Committee ISO/TC 206 "Fine ceramics" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 14629:2016 by Technical Committee CEN/TC 184 "Advanced technical ceramics" the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by October 2016, and conflicting national standards shall be withdrawn at the latest by October 2016.

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## INTERNATIONAL STANDARD

ISO 14629

First edition 2012-10-15

### Fine ceramics (advanced ceramics, advanced technical ceramics) — Determination of flowability of ceramic powders

*Céramiques techniques — Détermination de l'aptitude à l'écoulement des poudres céramiques* 



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#### Foreword

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ISO 14629 was prepared by Technical Committee ISO/TC 206, *Fine ceramics*.

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## Fine ceramics (advanced ceramics, advanced technical ceramics) — Determination of flowability of ceramic powders

#### 1 Scope

This International Standard specifies a test method to determine the flowability of granulated or ungranulated ceramic powders by means of a specified funnel. The method is applicable only to powders which flow freely through the specified test orifice.

#### 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.

ISO 565, Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings

ISO 80000-1, Quantities and units — Part 1: General

ISO/IEC 17025, General requirements for the competence of testing and calibration laboratories

#### **3** Principle

The flow time required for approximately 50,0 g of ceramic powder to flow through the orifice of a funnel having specified dimensions is determined. The mass of the powder divided by its flow time gives its flow rate, i.e. flowability.

#### 4 Apparatus

#### 4.1 Funnel

A stainless-steel funnel (Figure 1) having an orifice of diameter 2,5 mm and another funnel with an orifice of diameter 5,0 mm. The funnel shall be made of a non-magnetic, corrosion-resistant metallic material such as stainless steel (for example SUS 304) having sufficient wall thickness and hardness to withstand distortion and excessive wear.

#### 4.2 Container

A stainless-steel container large enough to collect all of the ceramic powders discharged from the orifice of a funnel, e.g. as indicated in Figure 2.

#### 4.3 Stand and horizontal vibration-free base

A stand to support the funnel concentric with the container so that the bottom of the funnel orifice is approximately 50 mm above the top of the container when the apparatus is assembled as shown in Figure 3.

#### 4.4 Sieve

A sieve, as specified in ISO 565, with an aperture size of 0,71 mm.



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