

Nederlandse norm

NEN-EN 1071-10

(en)

Advanced technical ceramics - Methods of test for ceramic coatings - Part 10: Determination of coating thickness by cross sectioning

Vervangt NPR-CEN/TS 1071-10:2004

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VOORBEELD
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Normcommissie 342032 "Technische Keramiek"

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Voorbeeld
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English Version

Advanced technical ceramics - Methods of test for ceramic coatings - Part 10: Determination of coating thickness by cross sectioning

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Foreword

This document (EN 1071-10:2009) has been prepared by Technical Committee CEN/TC 184 "Advanced technical ceramics", the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by January 2010, and conflicting national standards shall be withdrawn at the latest by January 2010.

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This document supersedes CEN/TS 1071-10:2004.

EN 1071 *Advanced technical ceramics — Methods of test for ceramic coatings* consists of the following parts:

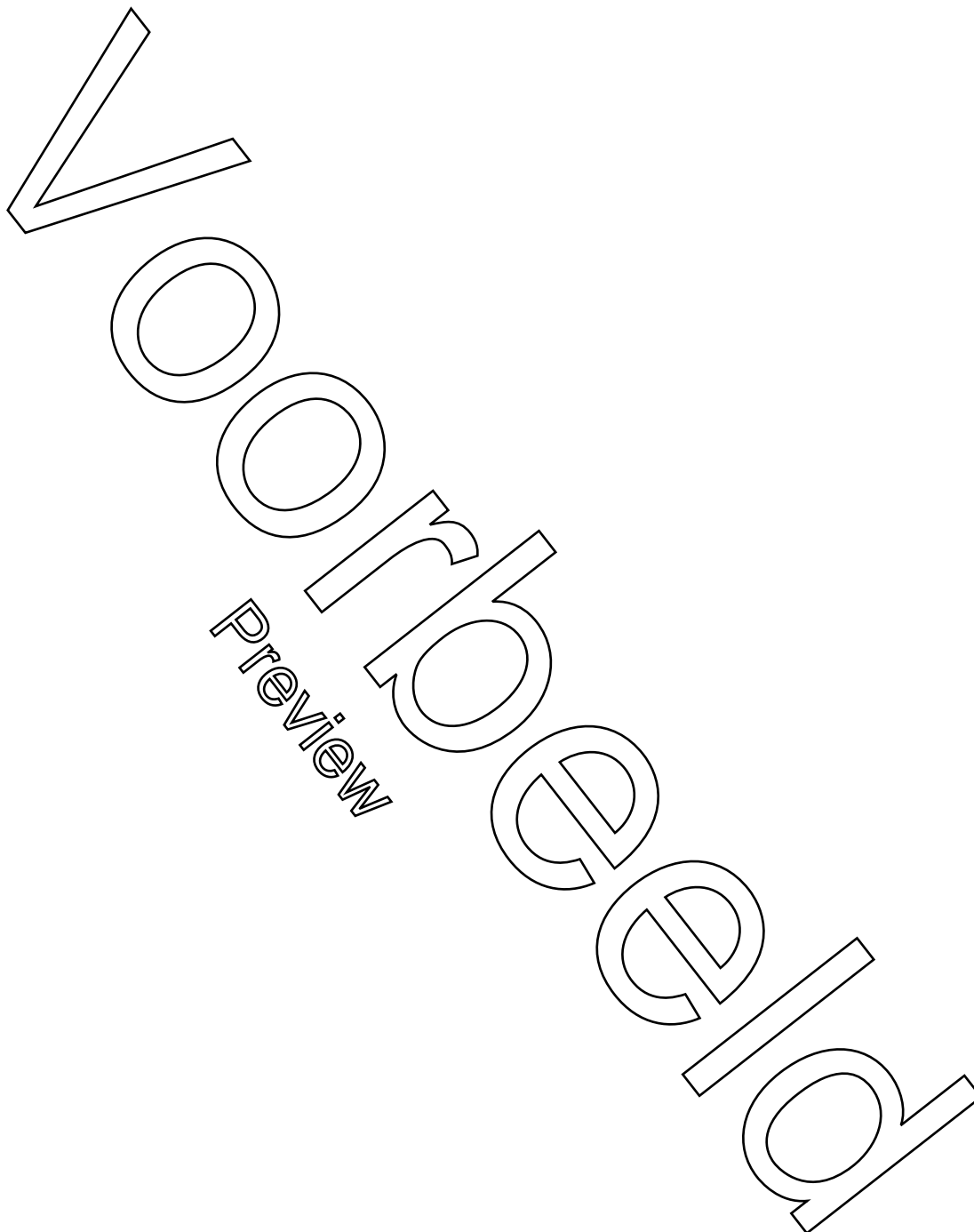
- Part 1: *Determination of coating thickness by contact probe profilometer*
- Part 2: *Determination of coating thickness by the crater grinding method*
- Part 3: *Determination of adhesion and other mechanical failure modes by a scratch test*
- Part 4: *Determination of chemical composition by electron probe microanalysis (EPMA)*
- Part 5: *Determination of porosity [withdrawn]*
- Part 6: *Determination of the abrasion resistance of coatings by a micro-abrasion wear test*
- Part 7: *Determination of hardness and Young's modulus by instrumented indentation testing [withdrawn]*
- Part 8: *Rockwell indentation test for evaluation of adhesion*
- Part 9: *Determination of fracture strain*
- Part 10: *Determination of coating thickness by cross sectioning*
- Part 11: *Determination of internal stress by the Stoney formula*
- Part 12: *Reciprocating wear test*¹⁾
- Part 13: *Determination of wear rate by the pin-on-disk method*¹⁾

Parts 7, 8 and 11 are Technical Specifications. Part 7 was withdrawn shortly after publication of EN ISO 14577-4:2007.

¹⁾ In preparation at the time of publication of this European Standard.

EN 1071-10:2009 (E)

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Introduction

The thickness of a coating is an important property that controls its functional behaviour. Thickness determinations are also used as part of quality control in the production of coatings. It is normal to specify a thickness when defining a coating, so that valid methods of measurement are required. The method described here is direct, but is destructive, requiring preparation of a metallographic cross-section. A number of other standard non-destructive methods exist and some of these are listed in the Bibliography (references [1] to [7]).

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