

**Pigments and extenders - Testing of  
colouring materials in plasticized  
polyvinyl chloride (PVC-P) - Part 3:  
Determination of the relative tinting  
strength of white pigments**

Pigments and extenders - Testing of colouring  
materials in plasticized polyvinyl chloride (PVC-P) -  
Part 3: Determination of the relative tinting strength  
of white pigments

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14469-3:2004 sisaldab Euroopa standardi EN 14469-3:2004 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 27.08.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14469-3:2004 consists of the English text of the European standard EN 14469-3:2004.</p> <p>This document is endorsed on 27.08.2004 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></p> <p>This Part of EN 14469 specifies a procedure for determining the relative tinting strength of white pigments in plasticized polyvinyl chloride (PVC-P) at identical concentration of the white pigments by mass. To this end, the white pigments are incorporated into the basic mixture A (see EN 14469-1) together with a carbon black pigment preparation.</p>	<p><b>Scope:</b></p> <p>This Part of EN 14469 specifies a procedure for determining the relative tinting strength of white pigments in plasticized polyvinyl chloride (PVC-P) at identical concentration of the white pigments by mass. To this end, the white pigments are incorporated into the basic mixture A (see EN 14469-1) together with a carbon black pigment preparation.</p>
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**ICS** 83.040.30

**Võtmesõnad:** castings, colorimetric properties, lightening power, materials testing, mouldings (shaped section), pigments, plasticized polyvinyl chloride, plastics, polyvinyl chloride, pvc-p, sampling, sampling methods, test equipment, test reports, testing, white pigments

English version

**Pigments and extenders - Testing of colouring materials in  
plasticized polyvinyl chloride (PVC-P) - Part 3: Determination of  
the relative tinting strength of white pigments**

Pigments et matières de charge - Essai des matières  
colorantes dans le chlorure de polyvinyle plastifié (PVC-P) -  
Partie 3: Détermination du pouvoir colorant relatif des  
pigments blancs

Pigmente und Füllstoffe - Prüfung von Farbmitteln in  
weichmacherhaltigem Polyvinylchlorid (PVC-P) - Teil 3:  
Bestimmung des relativen Aufhellvermögens von  
Weißpigmenten

This European Standard was approved by CEN on 2 February 2004.

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 Central Secretariat or to any CEN member.

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 Central Secretariat has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (EN 14469-3:2004) has been prepared by Technical Committee CEN/TC 298 "Pigments and extenders", 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 2004, and conflicting national standards shall be withdrawn at the latest by October 2004.

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

## 1 Scope

This Part of EN 14469 specifies a procedure for determining the relative tinting strength of white pigments in plasticized polyvinyl chloride (PVC-P) at identical concentration of the white pigments by mass. To this end, the white pigments are incorporated into the basic mixture A (see EN 14469-1) together with a carbon black pigment preparation.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 14469-1, *Pigments and extenders – Testing of colouring materials in plasticized polyvinyl chloride (PVC-P) – Part 1: Compositions and preparation of basic mixtures.*

EN ISO 787-24, *General method of tests for pigments and extenders - Part 24: Determination of relative tinting strength of coloured pigments and relative scattering power of white pigments - Photometric methods (ISO 787-24:1985).*

EN ISO 15528, *Paints, varnishes and raw materials for paints and varnishes - Sampling (ISO 15528:2000).*

ISO 7724-2, *Paints and varnishes – Colorimetry - Part 2: Colour measurement.*

## 3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

### 3.1 tinting strength TS

capability of a pigment to increase the lightness in colour of a coloured, grey or black medium

### 3.2 relative tinting strength TS<sub>r</sub>

ratio of the tinting strength of the sample TS<sub>P</sub> to the tinting strength of an agreed reference pigment TS<sub>RP</sub>, expressed as a percentage:

$$TS_r = \frac{TS_P}{TS_{RP}} \times 100 \quad (1)$$

Note For further details see EN ISO 787-24.

## 4 Apparatus and materials

### 4.1 Two-roll mill

which can be heated, with an adjustable distance between the rolls, roll diameters shall be between 80 mm and 200 mm and the ratio of the speed of rotations of the two rollers shall be between 1:1,1 and 1:1,2.