

**Pigments and extenders - Methods of  
dispersion and assessment of  
dispersibility in plastics - Part 5:  
Determination by filter pressure value  
test**

Pigments and extenders - Methods of dispersion and  
assessment of dispersibility in plastics - Part 5:  
Determination by filter pressure value test

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13900-5:2005 sisaldab Euroopa standardi EN 13900-5:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 22.06.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13900-5:2005 consists of the English text of the European standard EN 13900-5:2005.</p> <p>This document is endorsed on 22.06.2005 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>
--	---

<p><b>Käsitlusala:</b></p> <p>This part of EN 13900 specifies a method of assessing the degree of dispersion of a colorant in a thermoplastic polymer</p>	<p><b>Scope:</b></p> <p>This part of EN 13900 specifies a method of assessing the degree of dispersion of a colorant in a thermoplastic polymer.</p>
---	--

**ICS** 83.040.30

**Võtmesõnad:**

ICS 83.040.30

English version

**Pigments and extenders - Methods of dispersion and  
assessment of dispersibility in plastics - Part 5: Determination by  
filter pressure value test**

Pigments et matières de charge - Méthodes de dispersion  
et évaluation de l'aptitude à la dispersion dans les  
plastiques - Partie 5 : détermination de la valeur de  
pression du filtre lors d'un essai

Pigmente und Füllstoffe - Dispergierv Verfahren und  
Beurteilung der Dispergierbarkeit in Kunststoffen - Teil 5:  
Bestimmung mit dem Druckfiltertest

This European Standard was approved by CEN on 21 March 2005.

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.

CEN members are the national standards bodies of 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.



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

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

## Foreword

This European Standard (EN 13900-5:2005) 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 November 2005, and conflicting national standards shall be withdrawn at the latest by November 2005.

This document includes a Bibliography.

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 13900 specifies a method of assessing the degree of dispersion of a colorant in a thermoplastic polymer.

The method is suitable for testing colorants in the form of colour concentrates in all polymers used for extrusion and melt-spinning processes.

The filter pressure value (FPV) determined according to this method is valid only for the equipment, conditions and test polymer being used. The use of test conditions differing from those specified might give different results. The method of preparing the colour concentrate is not specified in this European Standard. The results obtained for individual colorants are therefore comparable only when the same method of preparation for colour concentrates is used.

Annex A is normative and gives a model for the breaker plate.

Annex B is informative and provides a model test report containing a result of the round-robin-tests carried out in preparing this European Standard.

## 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 10088-1, *Stainless steels – Part 1: List of stainless steels*.

## 3 Terms and definitions

For the purposes of this European Standard, the following term and definition applies.

### 3.1

#### **filter pressure value**

#### **FPV**

pressure difference between the start pressure and the maximum pressure generated by extrusion in front of a screen pack related to the amount of colorant tested

## 4 Principle

The test mixture, consisting of a colour concentrate and a basic test polymer, is passed through an extruder fitted with melt pump and screen pack with breaker plate. In front of the screen pack is a melt pressure transducer. The pressure difference between the start pressure and the maximum pressure is used to calculate the filter pressure value [FPV].

## 5 Material

### 5.1 Colour concentrate

Homogeneous preparation of a colorant in an appropriate thermoplastic polymer.

### 5.2 Basic test polymer

Thermoplastic polymer, of a grade and type to be agreed between the interested parties.