

**English version**

Derivatives from coal pyrolysis  
**Coal tar based oils: fluxing oils**  
Specifications and test methods

Produits dérivés de la pyrolyse du  
charbon – Huiles de goudron de  
houille: fluidifiants – Spécifications et  
méthodes d'essai

Derivate der Kohlenpyrolyse – Stein-  
kohlenteeöl: Fluxöle – Anforderungen  
und Prüfverfahren

This European Standard was approved by CEN on 2004-12-09.

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**CEN**

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## Foreword

This document (EN 14998:2005) has been prepared by Technical Committee CEN/TC 317, "Derivatives from coal pyrolysis", the secretariat of which is held by IBN.

This document is based on NF M 15-003.

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of an identical text or by endorsement, at the latest by July 2005, and conflicting national standards shall be withdrawn at the latest by July 2005.

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 document gives specifications and defines test methods for coal tar fluxing oils. Annex specifies this warning for use for industrial purposes. The main purposes of these oils are to reduce the viscosity of bituminous (carbonaceous) binders used for road construction. They may be used in conjunction with petrochemical feedstocks.

## 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 1014-1, *Wood preservatives - Creosote and creosoted timber-Methods of sampling and analysis – Part 1: Procedure for sampling creosote*

EN 1014-3, *Wood preservatives - Creosote and creosoted timber - Methods of sampling and analysis - Part 3: Determination of benzo[a]pyrene content of creosote*

EN 12303:2000, *Coal tar based oils - Terminology*

EN 12846, *Bitumen and bituminous binders. Determination of efflux time of bitumen emulsions by the efflux viscometer*

EN 13847:2001, *Coal tar and pitch based binders and related products - Terminology and classification*

EN 13991, *Derivatives from coal pyrolysis - Coal tar based oils: creosotes - Specifications and test methods*

EN ISO 2719, *Determination of flash point - Pensky-Martens closed cup method (ISO 2719:2002)*

EN ISO 3405, *Petroleum products. Determination of distillation characteristics at atmospheric pressure (ISO 3405:2000)*

EN ISO 3675, *Crude petroleum and liquid petroleum products - Laboratory determination of density - Hydrometer method (ISO 3675:1998)*

ISO 760, *Determination of water - Karl Fischer method (General method)*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 12303:2000 and EN 13847:2001 apply.

## 4 Sampling

Samples for the assessment of the characteristics listed in Table 1 shall be taken in accordance with EN 1014-1.

5 Specifications and test methods

Table 1 — Specifications and test methods for fluxing oils grade A, B, C and D

Parameters	Grade A light fluxing oils	Grade B Medium fluxing oils	Grade C Heavy fluxing oils	Grade D	Tests method
Distillation range (°C)					EN ISO 3405
0 - 185	< 70 %	< 5 %	< 5 %	< 5 %	
185 - 270	> 30 %	65 - 85	10 - 25	< 50	
270 - 305		> 15	15 - 25	< 70	
305 - 350			> 10	< 90	
Density at 20°C (kg/m <sup>3</sup> )	> 1,000	> 1,000	> 1,000	> 930	ISO 3675
Water content (% m/m)	< 0,5	< 0,5	< 0,5	< 1	ISO 760 *
Crystallization temperature (°C)	< 0	< 0	< 0		EN 13991
Benzo[a]pyrene content (mg/kg)	< 50	< 50	< 50	< 50	EN 1014-3
Flash point (°C)	> 61	> 61	> 101	> 61	EN ISO 2719
Viscosity					EN 12846
STV ϕ 2 mm at 25°C	> 16 s	> 18 s			
at 40°C	> 15 s	> 16 s			
ϕ 4 mm at 25°C			< 30 s.		
* As an alternative, the ISO 3733 may be used					
Grade A is intended for the preparation of storable cold mix binders and slurry sealings.					
Grade B and Grade C are devoted to the preparation of binders for surface dressing, respectively in cold and warm weather conditions.					
Grade D is issued from low temperature coal tar distillation and is intended for the preparation of binders for precoated chippings.					

## Annex A (informative)

### Warning for use<sup>1)</sup>

#### A.1 Composition - Data on components

- **Chemical characterization:**
- **CAS. N° Designation:** not applicable
- **Identification number (s):**
- **EINECS Number:** not applicable.
- **EU Number:** not applicable.
- **Chemical characterization:**
- **Description:** Complex mixture of polynuclear aromatic and heterocyclic hydrocarbons.
- **Dangerous components:** Void.

#### A.2 First aid measures

- **General information:** instantly remove any clothing spoiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact:** Instantly wash with water and soap and rinse thoroughly.
- **A.2.4 After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** In case of persistent symptoms consult doctor.

#### A.3 Handling and storage

- **Handling.**
- **Information for safe handling:** No special measures required; precautions against electrostatic charging.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Keep container tightly sealed.
- **Further information about storage conditions:** None.

#### A.4 Disposal considerations

- **Product:**
- **European waste catalogue:** The waste code classification is to be carried out according to the European Waste Catalogue (EWC) specifically for each branch of industry and each type of process.
- **Uncleaned packagings**
- **Recommendation:** Disposal should be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

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1) The latest edition of the publication of the Material Safety Data Sheet of the product applies

## Bibliography

- [1] ISO 3733, *Petroleum products and bituminous materials - Determination of water - Distillation method*



