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Derivatives from coal pyrolysis — Terminology

The European Standard EN 15529:2007 has the status of a British Standard

ICS 01.040.75; 75.160.10

National foreword

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A list of organizations represented on this committee can be obtained on request to its secretary.

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Derivatives from coal pyrolysis - Terminology

Dérivés de la pyrolyse du charbon - Terminologie

Derivate der Kohlenpyrolyse - Begriffe

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Foreword

This document (EN 15529:2007) has been prepared by CEN/TC 317, "Derivatives from coal pyrolysis", the secretariat of which is held by IBN/BIN.

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of an identical text or by endorsement, at the latest by August 2007, and conflicting national standards shall be withdrawn at the latest by August 2007.

This document supersedes EN 12302:2000, EN 12303:2000 and EN 13847:2001.

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1 Scope

This European Standard defines the principal terms concerning derivatives from coal pyrolysis.

2 Terms and definitions

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

2.1
crude tar
liquid organic product resulting from the forced thermal decomposition of naturally occurring organic material

NOTE The word “tar” should be preceded by the name of the matter from which the tar has been produced, i.e. coal, shale, peat, wood, vegetable matter, etc. and/or the mode of production, unless this can refer only to a particular raw material.

2.1.1
coal tar
co-product from the destructive distillation of coal.

NOTE Almost black, it is a combination of mainly hydrocarbons with a small content of oxygen, nitrogen and sulphur derivatives

2.1.1.1
high temperature coal tar
condensation product obtained by cooling to approximately ambient temperature the gas evolved from high temperature (more than 700°C) destructive distillation of mainly coal.

NOTE Almost black, it is a semi-solid combination of mainly polycyclic aromatic hydrocarbons and alkyl derivatives with a small content of water and solid particles evolved from the process

2.1.1.2
low temperature coal tar
condensation product obtained by cooling to approximately ambient temperature the gas evolved from low temperature (less than 700°C) destructive distillation of mainly coal.

NOTE Almost black, it is a semi-solid complex combination of polycyclic aromatic, aliphatic, and naphthenic hydrocarbons and a small content of oxygen nitrogen and sulphur derivatives

2.1.1.3
low temperature coal gasification tar
complex combination of organic compounds obtained in the form of a tar from the gasification of coal at 400°C to 700°C and boiling in the range of approximately 320° C to 560° C.

NOTE It is composed primarily of a mixture of aromatic compounds with the addition of phenols and nitrogen and sulphur compounds

2.1.2
lignite tar
tar obtained from the low temperature carbonisation and low temperature gasification of lignite coal, composed primarly of aliphatic, naphthenic, cyclic aromatic hydrocarbons and phenols

2.2
crude benzole
volatile organic liquid extracted from the gas evolved from high temperature (greater than 700° C) destructive distillation of mainly coal.

NOTE 1 It is composed primarily of benzene, toluene and xylenes.

NOTE 2 It may contain other minor hydrocarbon constituents

NOTE 3 The name “crude benzole” is given to:

a) mainly light hydrocarbon liquid product scrubbed from the cooled volatile products of coal carbonisation;

b) lowest primary distillate fraction of coal tar;

c) mixture of these products

NOTE 4 In addition to the main components (benzene, toluene and xylenes) crude benzole usually contains unsaturated hydrocarbons and sulphur compounds. Paraffins, naphthenes, naphthalene, phenols, and pyridine bases may also be present, the last two usually in small amounts.

Some crude benzoles recovered from coal gas will yield appreciable quantities of high boiling components which result from distillation from the absorbing oil used in their recovery.

2.3
coal tar based oils

2.3.1
creosote
coal tar distillate or preparation of coal tar distillates, used to protect timber (wood) against biological agencies

NOTE Coal tar distillates may be processed to remove certain chemicals. Additives may be present.

2.3.2
carbolineum (no longer used)
preparation whose active ingredient is a coal tar distillate, such as creosote, used to protect timber (wood) against biological agencies

NOTE The coal tar distillates may be processed to remove certain chemicals.

2.3.3
flux oil
coal tar distillate or preparation of coal tar distillates used to reduce the viscosity of more viscous tar fractions or petroleum fractions

NOTE 1 Coal tar distillates may be processed to remove certain chemicals.

NOTE 2 An example of flux oil use is in the field of hydrocarbon binders.

2.3.4
carbon black feedstock
coal tar, coal tar fractions or coal tar distillates used for the manufacture of carbon black

NOTE Petrochemical products may also be used as feedstock for carbon black productions.

2.3.5
coal tar fuel
coal tar, coal tar fractions, or coal tar distillates used for thermic recovery

NOTE Coal tar distillates may be processed to remove certain chemicals. Additives may be present.

2.3.6
wash oil
coal tar distillation cut or preparation based on several distillates of coal tar, used to dissolve hydrocarbons in various areas of application

2.4
coal tar and pitch based binders

2.4.1
road binders

2.4.1.1
straight run tar
black, viscous liquid, having adhesive and waterproofing properties, used as a binder for road purposes, obtained directly from the distillation column without modification or blending

2.4.1.2
road tar
black, viscous liquid, having adhesive and waterproofing properties, used as a binder for road purposes, manufactured by blending pitch and oils derivatives which are obtained by distilling crude coal tars

2.4.1.3
modified tar
road tar as described in (2.4.1.2) to which materials (mostly macromolecular) have been added to modify the properties of the base tar

NOTE Mineral fillers or surfactants added to road tar are not considered to be modifying agents.

2.4.1.4
composed tar
tar-bitumen mixture
mixture of road tars as described in (2.4.1.2) or modified tars as described in (2.4.1.3) and bitumen

2.4.1.5
tar-emulsion
dispersion of road tar in water or water in road tar

2.4.2
refractory binder
refractory tar
black viscous liquid, having adhesive and waterproofing properties, consisting of a blend of a range of coal tar pitch and oils, used as a binder for refractory materials

2.4.3
briquetting pitch
straight run pitch, obtained from the distillation of crude coal tar used for the agglomeration of carbonaceous materials to form briquettes

2.4.4
carbon binder pitch
pitch produced from crude coal tar, either as straight run material by heat treatment or by vacuum distillation, used as a binder for granular carbonaceous materials

2.4.5
impregnating pitch
pitch obtained by distillation of crude coal tar, with the ability to penetrate the porous structure of carbonized or refractory products

2.5
related tar products

2.5.1
painting tar
black varnish
homogenous, black solution of materials of coal tar origin in an appropriate solvent, generally of low viscosity, used to cover a surface for protection, decoration or other purposes

NOTE This material can also be used as an extender for epoxy and urethane systems.

2.5.2
coating tar
material of coal tar origin, generally of high viscosity, used to cover a surface for protection, decoration or other purposes, usually applied by dipping or spraying.

NOTE This material can also be used as an extender for epoxy and urethane systems.

blank

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