

## Title (en)

ASPHALT COMPOSITION AND PROCESS FOR PREPARING SUCH A COMPOSITION

## Title (de)

ASPHALTZUSAMMENSETZUNG UND VERFAHREN ZUR HERSTELLUNG SOLCH EINER ZUSAMMENSETZUNG

## Title (fr)

COMPOSITION D'ASPHALTE ET PROCÉDÉ DE PRÉPARATION D'UNE TELLE COMPOSITION

## Publication

**EP 3107973 A1 20161228 (EN)**

## Application

**EP 15710943 A 20150220**

## Priority

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- NL 2015050111 W 20150220

## Abstract (en)

[origin: WO2015126252A1] In a first aspect the invention relates to an asphalt composition comprising a bituminous binder material and solid particles composed of mineral aggregates and elastic particles, which elastic particles have a maximum particle size of at most 2.8 mm, and wherein the solid particles composed of mineral aggregates and elastic particles are gap-graded, the gap being defined by a lower and an upper limit, wherein solid particles of a size between the lower and upper limit are substantially absent, wherein the upper limit of the gap is bigger than the maximum particle size of the elastic particles, and wherein the mineral aggregates include particles with particle sizes above the upper limit of the gap. Other aspects of the invention concern a preferred method of preparing the asphalt composition, a road surface manufactured from the asphalt composition and a mastic composition.

## IPC 8 full level

**C09D 195/00** (2006.01); **C08L 95/00** (2006.01); **C09J 195/00** (2006.01); **E01C 7/18** (2006.01); **E01C 9/00** (2006.01); **E01C 11/00** (2006.01); **E01C 19/10** (2006.01)

## CPC (source: EP)

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## Citation (search report)

See references of WO 2015126252A1

## Citation (examination)

- GORDON D. AIREY ET AL: "Absorption of Bitumen into Crumb Rubber Using the Basket Drainage Method", THE INTERNATIONAL JOURNAL OF PAVEMENT ENGINEERING, vol. 4, no. 2, 1 June 2003 (2003-06-01), GB, pages 105 - 119, XP055719480, ISSN: 1029-8436, DOI: 10.1080/1029843032000158879
- LÓPEZ-MORO FRANCISCO JAVIER ET AL: "Microscopic analysis of the interaction between crumb rubber and bitumen in asphalt mixtures using the dry process", CONSTRUCTION AND BUILDING MATERIALS, ELSEVIER, NETHERLANDS, vol. 48, 24 August 2013 (2013-08-24), pages 691 - 699, XP028736093, ISSN: 0950-0618, DOI: 10.1016/J.CONBUILDMAT.2013.07.041
- NUHA SALIM MASHAAN ET AL: "A Review on Using Crumb Rubber in Reinforcement of Asphalt Pavement", THE SCIENTIFIC WORLD JOURNAL, vol. 2014, 30 January 2014 (2014-01-30), pages 1 - 21, XP055719572, ISSN: 2356-6140, DOI: 10.1155/2014/214612
- PANAGIOTIS FRANTZIS: "Crumb Rubber-Bitumen Interactions: Diffusion of Bitumen into Rubber", JOURNAL OF MATERIALS IN CIVIL ENGINEERING, vol. 16, no. 4, 1 August 2004 (2004-08-01), US, pages 387 - 390, XP055719582, ISSN: 0899-1561, DOI: 10.1061/(ASCE)0899-1561(2004)16:4(387)
- PATRIK KARLSSON: "Clogging of Open and Gap Graded Pavements (Thesis)", 1 January 2006 (2006-01-01), Luleå , Sweden, pages 1 - 68, XP055719570, Retrieved from the Internet <URL:https://www.diva-portal.org/smash/get/diva2:1017660/FULLTEXT01.pdf> [retrieved on 20200803]

## Designated contracting state (EPC)

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## Designated extension state (EPC)

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