

Title (en)

RUBBER COMPOSITION BASED ON DIENE ELASTOMER AND A REINFORCING SILICON NITRIDE

Title (de)

KAUTSCHUKZUSAMMENSETZUNG MIT EINEM DIEN-ELASTOMER UND VERSTÄRKTEM SILICIUM NITRID

Title (fr)

COMPOSITION DE CAOUTCHOUC A BASE D'ELASTOMERE DIENIQUE ET D'UN NITRURE DE SILICIUM RENFORCANT

Publication

**EP 1519986 A1 20050406 (FR)**

Application

**EP 03738092 A 20030627**

Priority

- EP 0306802 W 20030627
- FR 0208279 A 20020701

Abstract (en)

[origin: WO2004003067A1] The invention relates to a rubber composition which can be used to produce tyres and which is based on at least one diene elastomer, a reinforcing inorganic filler and a coupling agent which is used to join the inorganic filler and the elastomer. The inventive composition is characterised in that the aforementioned inorganic filler comprises a silicon nitride having the following characteristics: (a) a specific surface area (BET) of between 20 and 200 m<sup>2</sup>/g and (b) an average particle size (mass) dw of between 10 and 350 nm. The invention also relates to the use of one such rubber composition for the production of rubber articles, in particular tyres or semi-finished rubber products, such as treads, which are intended for tyres.

IPC 1-7

**C08K 3/34**; **B60C 1/00**

IPC 8 full level

**B60C 1/00** (2006.01); **C08K 3/00** (2006.01); **C08K 3/04** (2006.01); **C08K 3/22** (2006.01); **C08K 3/34** (2006.01); **C08K 5/548** (2006.01); **C08L 21/00** (2006.01)

CPC (source: EP US)

**B60C 1/00** (2013.01 - EP US); **B60C 1/0008** (2013.01 - EP US); **B60C 1/0016** (2013.01 - EP US); **B60C 1/0025** (2013.01 - EP US); **C08K 3/013** (2017.12 - EP US); **C08K 3/34** (2013.01 - EP US)

Citation (search report)

See references of WO 2004003067A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

**FR 2841560 A1 20040102**; **FR 2841560 B1 20060203**; AU 2003245992 A1 20040119; EP 1519986 A1 20050406; JP 2005531659 A 20051020; JP 4593272 B2 20101208; US 2005171264 A1 20050804; US 7135517 B2 20061114; WO 2004003067 A1 20040108

DOCDB simple family (application)

**FR 0208279 A 20020701**; AU 2003245992 A 20030627; EP 0306802 W 20030627; EP 03738092 A 20030627; JP 2004516714 A 20030627; US 2508104 A 20041230