

Title (en)

TYRE TREAD REINFORCED WITH SILICA HAVING A VERY LOW SPECIFIC SURFACE AREA

Title (de)

REIFENLAUFFLÄCHE VERSTÄRKT DURCH KIESELSÄURE MIT NIEDRIGER SPEZIFISCHER OBERFLÄCHE

Title (fr)

BANDE DE ROULEMENT POUR PNEUMATIQUE RENFORCEE D'UNE SILICE A TRES BASSE SURFACE SPECIFIQUE

Publication

EP 1404755 A1 20040407 (FR)

Application

EP 02751056 A 20020621

Priority

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Abstract (en)

[origin: WO03002649A1] The invention relates to a tyre tread comprising an elastomer composition reinforced with silica and made from at least (pce = parts by weight per 100 parts of diene elastomer): (i) a diene elastomer; (ii) by way of a reinforcing filler, more than 80 pce of an inorganic filler consisting wholly or partly of a silica (called LS) having the following characteristics: (a) a BET specific surface area of between 50 and 100 m²/g; (b) an average particle size dw of between 50 and 350 nm; (iii) a coupling agent that is used to link the reinforcing inorganic filler and the diene elastomer; (iv) a sulphur-based vulcanisation system. Preferably, said LS silica has a deagglomeration speed alpha that is greater than 5.10⁻³ mu m-1/min (measured with the deagglomeration test using ultrasound). In comparison to a standard tyre tread for green tyres reinforced with a silica having a higher specific surface area, the inventive tyre tread is provided with an improved performance trade-off in terms of wear resistance, rolling resistance, adhesion and drift thrust.

IPC 1-7

C08K 9/12; **C08K 3/36**; **B60C 1/00**; **C08L 9/00**

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

See references of WO 03002649A1

Citation (third parties)

Third party :

- US 5925713 A 19990720 - LABAUZE GERARD [FR]
- US 5227425 A 19930713 - RAULINE ROLAND [FR]

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DE102020209890A1; EP3418072A1; DE102017210177A1; EP4105279A1; DE102021206276A1; EP3172275B1

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