

Title (en)

Spray material, thermal spray layer and cylinder with a thermal spray layer

Title (de)

Spritzwerkstoff, eine thermische Spritzschicht, sowie Zylinder mit einer thermischen Spritzschicht

Title (fr)

Composition pour revêtement par projection à chaud, ainsi que cylindre doté d'une couche déposée par projection à chaud

Publication

EP 2330228 B1 20170927 (DE)

Application

EP 10189151 A 20101028

Priority

- EP 09177917 A 20091203
- EP 10189151 A 20101028

Abstract (en)

[origin: EP2330228A1] The spraying material for thermal coating of a substrate such as a running surface of a cylinder of a reciprocating internal combustion engine, comprises a solid lubricant made of zinc oxide (ZnO), where the volume fraction of the zinc oxide in the spray material is 4-12%. The spraying materials additionally consist of elements such as copper, chromium, titanium, oxygen, manganese, molybdenum, iron, sulfur, tungsten, boron, barium, calcium and fluorine. The spraying material comprises an atomized carbon steel, a chrome steel, and a ceramic material, which is iron titanium oxide impurities. The spraying material for thermal coating of a substrate such as a running surface of a cylinder of a reciprocating internal combustion engine, comprises a solid lubricant made of zinc oxide (ZnO), where the volume fraction of the zinc oxide in the spray material is 4-12%. The spraying materials additionally consist of elements such as copper, chromium, titanium, oxygen, manganese, molybdenum, iron, sulfur, tungsten, boron, barium, calcium and fluorine. The spraying material comprises an atomized carbon steel, a chrome steel, and a ceramic material, which is iron titanium oxide impurities. The zinc oxide in the spraying material is present as ZnO powder with a given particle size and/or the spraying material is formed by agglomeration and/or mixing and/or cladding with the zinc powder. The particle size of the ZnO powder is 5-15 μ m. A particle of the ZnO powder is mixed and/or agglomerated with a metal powder and/or formed by cladding, where the particle of ZnO powder is mixed and/or agglomerated with a powder of low-alloyed carbon steel or with a powder of corrosion-resistant chromium steel such as a ferritic and/or martensitic chromium steel and/or with a metal powder and/or a ceramic powder from the iron titanium oxide. An independent claim is included for a thermal spraying coating from a spraying material.

IPC 8 full level

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CPC (source: EP US)

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Cited by

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