

Title (en)

PREMIX ALLOY POWDERS FOR DIAMOND TOOLS

Title (de)

VORMISCHLEGIERUNGSPULVER FÜR DIAMANTWERKZEUGE

Title (fr)

POUDRES D'ALLIAGE DE PRÉMÉLANGE POUR OUTILS DIAMANTÉS

Publication

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Application

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Priority

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Abstract (en)

[origin: EP3808864A1] The present invention provides a powder composition comprising a mixed powder of the formula (1)
$$\text{Fe-}a\text{-Co-}b\text{-Cu-}c\text{-Sn-}d\text{-Ni-}e\text{-B-}f\text{-Cr-}g\text{-C-}h$$
(1)Wherein, based on $(a+b+c+d+e+f+g+h) = 100$ (wt.-%), a-h indicate the content of the individual elements (wt.-%):ais 0-85.0bis 0-85.0with
(a+b) being 40.0-85.0cis 10.0-50.0dis 0.1-17.5with (c+d) being 10.1-55.0 [100^{*}] being 1.0-35.0eis 0.01-15.0fis 0.02-1.0gis
0.10-4.0his 0.01-1.0wherein the content of the composition of formula (1) is ≥ 98 wt.-% of the entire composition. Also provided are compositions
comprising the above powder composition and other material suitable for preparing a matrix (bond) for diamonds in a diamond cutting tool; a
composite material made of diamond and the present compositions and a process for making these composite materials, and further the use of a
powder of a XCrBC-alloy powder (X = Fe and/or Co) as a diamond binding and/or reinforcing agent.

IPC 8 full level

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