

## Title (en)

MARTENSITIC STEEL WITH RETARDED Z PHASE FORMATION, POWDER AND BLANK OR COMPONENT

## Title (de)

MARTENSITISCHER STAHL MIT VERZÖGERTER Z-PHASENBILDUNG, PULVER SOWIE ROHTEIL ODER BAUTEIL

## Title (fr)

ACIER MARTENSITIQUE À FORMATION DE PHASE Z RETARDÉE, POUDRE ET ÉBAUCHE OU COMPOSANT

## Publication

**EP 4204595 A1 20230705 (DE)**

## Application

**EP 21773009 A 20210901**

## Priority

- DE 102020213394 A 20201023
- EP 2021074098 W 20210901

## Abstract (en)

[origin: WO2022083928A1] Martensitic steel with Z phase, powder, and blank or component - alloy, at least comprising (in % by weight): carbon (C): 0.16% - 0.24%, silicon (Si): 0.0% - 0.08%, manganese (Mn): 0.04% - 0.16%, chromium (Cr): 10.6% - 11.5%, molybdenum (Mo): 0.5% - 0.9%, tungsten (W): 2.2% - 2.6%, cobalt (Co): 3.0% - 3.6%, nickel (Ni): 0.09% - 0.19%, boron (B): 0.0035% - 0.01%, nitrogen (N): 0.001% - 0.025%, titanium (Ti): 0.01% - 0.04%, copper (Cu): 1.20% - 2.30%, optionally vanadium (V): 0.10% - 0.30%, niobium (Nb): 0.02% - 0.08%, aluminium (Al): 0.003% - 0.06%, balance: iron (Fe), especially consisting of these elements.

## IPC 8 full level

**C22C 38/40** (2006.01); **B22F 1/00** (2022.01); **C22C 33/02** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/06** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/46** (2006.01); **C22C 38/48** (2006.01); **C22C 38/50** (2006.01); **C22C 38/52** (2006.01); **C22C 38/54** (2006.01)

## CPC (source: EP KR US)

**B22F 1/10** (2022.01 - KR US); **B22F 1/12** (2022.01 - US); **B22F 3/17** (2013.01 - EP KR); **B22F 5/009** (2013.01 - KR); **B33Y 10/00** (2014.12 - KR); **C22C 1/05** (2013.01 - KR); **C22C 33/0285** (2013.01 - EP); **C22C 38/001** (2013.01 - EP KR US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - US); **C22C 38/06** (2013.01 - EP KR US); **C22C 38/40** (2013.01 - EP); **C22C 38/42** (2013.01 - EP KR US); **C22C 38/44** (2013.01 - EP KR US); **C22C 38/46** (2013.01 - EP KR US); **C22C 38/48** (2013.01 - EP US); **C22C 38/50** (2013.01 - EP KR US); **C22C 38/52** (2013.01 - EP KR US); **C22C 38/54** (2013.01 - EP KR US); **B22F 1/10** (2022.01 - EP); **B22F 5/009** (2013.01 - EP); **C22C 1/05** (2013.01 - EP)

## Citation (search report)

See references of WO 2022083928A1

## Designated contracting state (EPC)

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## Designated extension state (EPC)

BA ME

## Designated validation state (EPC)

KH MA MD TN

## DOCDB simple family (publication)

**WO 2022083928 A1 20220428**; CN 116419984 A 20230711; DE 102020213394 A1 20220428; EP 4204595 A1 20230705; JP 2023546198 A 20231101; KR 20230090346 A 20230621; US 2023392245 A1 20231207

## DOCDB simple family (application)

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