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Cr

Strengthening Mechanism of Cr Alloyed Steel Powder for High Strength Sintered Parts

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:
1Cr-0.3Mo-0.3V (mass)
KIP 103V 0.9 mass
1 000 MPa
310 MPa
Mn V

Synopsis :

A prealloyed 1Cr-0.3Mo-0.3V (mass) steel powder, KIP 103V, has been developed to obtain the high compressibility of powder and the high strength of sintered compacts without heat-treatment after sintering. The as-sintered steel without heat-treatment made from this new powder with 0.9 mass graphite addition gives as high strength as heat-treated sintered steel. Tensile strength is 1 000 MPa and d6(1V) -w o

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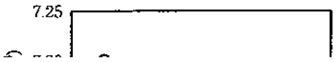
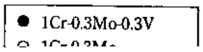
要旨

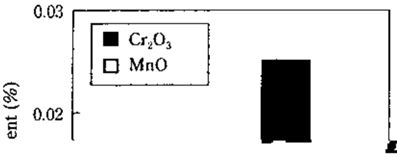
圧縮性が高く，焼結ままの熱処理なしで高強度が得られる 1Cr-0.3Mo-0.3V (mass%) 組成のプレアロイ鋼粉「KIP 103V」を開発し

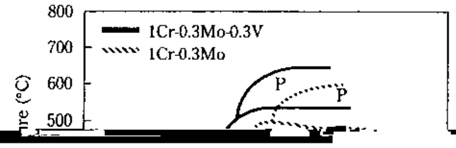
Table 1 Chemical compositions of powders used

(mass%)




● 1Cr-0.3Mo-0.3V


0.03
0.02
ent (%)
■ Cr_2O_3
□ MnO


800
700
600
500
re (°C)
1Cr-0.3Mo-0.3V
1Cr-0.3Mo
P
P