

KAWASAKI STEEL TECHNICAL REPORT
No.43 (October 2000)

Am 0

Strengthening Mechanism of Cr Aligned Steel Powder

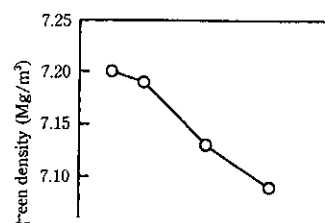
for High Strength Sintered Parts*

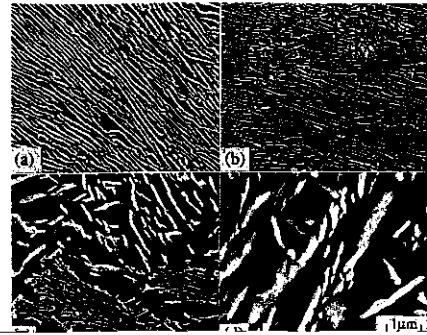
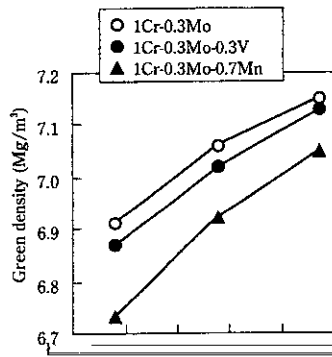
Synopsis:

A prealloyed 1Cr-0.3Mo-0.3V (mass%) steel powder,

Table 1 Chemical compositions of powders used

	(mass%)					
	Cr	Mn	Mo	V	Ni	Cu
0.5Cr	0.50	0.05	0.01	—	—	—
1Cr	1.09	0.02	0.01	—	—	—
2Cr	2.05	0.04	0.01	—	—	—
3Cr	3.18	0.05	0.01	—	—	—





Compacting pressure (MPa)

Photo 1 Microstructures of 1Cr-0.3Mo sintered

1 100

- 1Cr-0.3Mo-0.3V
- 1Cr-0.3Mo
- 4Ni-1.5Cu-0.5Mo

0.1

- 1Cr-0.3Mo-0.3V
- 1Cr-0.3Mo
- ▲ 1Cr-0.3Mo-0.7Mn

Pearlite lamellar spacing, λ (μm)

obtained are summarized as follows:

(1) The ~~_____~~ _____ ~~_____~~ _____ ~~_____~~ _____ ~~_____~~ _____ ~~_____~~ _____

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