Cr3C2 powder basic information introduction

Product introduction:

Chromium carbide,Chemical formula Cr3C2,Molecular weight 180.02,Carbon content 13.344%,Density 6.68 g/cm3, Melting point 1890ºC,Boiling point:3800ºC.Chromium carbide is gray powder with rhomboid system structure， which is dissoluble in water and resistant to acid and alkali ． It is high melting-point inorganic material with wear resistance， corrosion resistance and resistance to oxidation at elevated temperature（1000~ 1100ºC），and is expansively used as thermal spray material to protect the metal surface，and as additive to fine the cemented carbide crystal and some other wear-resistant and corrosion—resistant organ as well． Cr3C2 cermet has excellent resistance to oxidation at high temperature．The cermets surface only will darken in some sort after exposed at 980 ºC for 5 hours．However，18-8 stainless steel destroyed obviously and the WC-6Co alloy oxidized entirely at the same condition．

Product application，performance and technical:

Chromium carbide applies in the chromatic carbide welding rod (for example chromatic carbide welding rods and so on D626, D402), the carbonized niobium - chromatic carbide compound high wear-resisting built-up welding welding rod belongs to the wear-resisting built-up welding material domain.Chromium carbide applies in the high degree of hardness chromic carbide wear-resisting compound steel plate (for example the SA1750CR wear-resisting duplicate plywood), the built-up welding compound steel plate, the anti-abrasion thin film and the semiconductor thin film.The chromic carbide applies in the ultra-fine grain hard alloy, has the very high degree of hardness and the wear-resisting performance, simultaneously also has the very high intensity and toughness.Chromium carbide applies in the chrome chromic carbide powder (NiCr-Cr3C2), is the cermet powder new variety, becomes one kind of ideal anti-high temperature to be wear-resisting, anticorrosion overall performance thermal spray coating material. Mainly uses in the plasma or the detonation spray coating, the supersonic speed flame spraying, applies in profession and so on metallurgy, electric power, petrochemical anti-high temperature anti-corrosive work piece protections.

Cr3C2 powder technical data:

GRADE	CHEMICAL COMPOSITION(max,%)								
	Total carbon	Free carbon	Impurities（max,%）						
			Nb	Fe	Si	O	N	S	K	Ca
LF-Cr3C2	≥12.8	≤0.30	0.01	0.08	0.04	0.7	0.10	0.03	0.005	0.005
Particle size:0.5-500micron ,5-400mesh Particle size and chemical composition are modified on request.									