

CHROMIUM(II)CARBIDE

Due to its remarkable properties at high temperatures, chromium carbide is widely employed as a high-temperature, wear-resistant, oxidation-resistant, and acid-resistant coating in various applications. Additionally, chromium carbide is commonly used as a grain refinement agent in cemented carbides and as a component in other wear-resistant and corrosion-resistant parts. Metal ceramics based on Cr_3C_2 demonstrate outstanding oxidation resistance at high temperatures. Chromium carbide can also be used in the production of chromium carbide ceramics. Coarse-grained chromium carbide, when employed as a thermal spray material, forms a sprayed coating on metal and ceramic surfaces, imparting enhanced wear resistance, heat resistance, and corrosion resistance to these substrates. This technology finds extensive application in aircraft engines and petrochemical machinery, contributing to a substantial increase in their service life. Furthermore, chromium carbide is utilized in the deposition of semiconductor films.

Analysis

ITEM/GRADE	CCA	CCB	CCC
Total Carbon TC	12.9-13.2%	12.6-13.3%	12.6-13.3%
Free Carbon FC	$\leq 0.35\%$	$\leq 0.35\%$	$\leq 0.4\%$
Total Chromium	82-86%	82-86%	82-86%
Al	$\leq 0.02\%$	$\leq 0.06\%$	$\leq 0.06\%$
Ca	$\leq 0.02\%$	$\leq 0.05\%$	$\leq 0.05\%$
Si	$\leq 0.05\%$	$\leq 0.08\%$	$\leq 0.08\%$
Na	$\leq 0.01\%$	$\leq 0.05\%$	$\leq 0.05\%$
Fe	$\leq 0.1\%$	$\leq 0.1\%$	$\leq 0.3\%$
F.S.S.S	1.5	2.0-3.0	325 mesh