

COBALT ALUMINATE



Cobalt aluminate is a product specific to the investment casting industry. It is used as a nucleating agent in the investment casting process of superalloys.

Cobalt aluminate is added to the primary slurry and, in this way, it helps to control the surface grain sizing and offers the best nucleating effect.

Typical Material Properties*

Typical Metal Content	Specification	Particle Size	Specification
Co	40.5 ± 1%	D ₅₀	4.5 ± 0.5 µm
Na ₂ O	< 0.3%		
MgO	< 0.05%		
Fe	< 0.04%		
Zn	< 75 ppm		
Pb	< 50 ppm		
Ag	< 10 ppm		
Bi	< 5 ppm		
		Typical Properties	Specification
		pH	8.5-10.5
		Phase Characterization XRD	Specification
		CoAl ₂ O ₄	> 99% (wt)
		Al ₂ O ₃	< 1% (wt)
		Co ₃ O ₄	< 1% (wt)

*These results are based on the testing methods, frequency and procedures of Ransom & Randolph or its approved suppliers. The levels referenced herein are only for general guidance and do not constitute a firm specification.

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