

Thermal Spray Powders Technical Datasheet



Saint-Gobain Ruby

POWDERS CHARACTERISTICS

Product	Nominal Size	Color	Morphology
Ruby L	25-45 micron	Black	Agglomerated and sintered
Ruby F	15-40 micron	Black	Agglomerated and sintered
Ruby VF	10-30 micron	Black	Agglomerated and sintered

TYPICAL CHEMISTRY

Cr ₂ O ₃	Al ₂ O ₃	Fe ₂ O ₃	TiO ₂	SiO ₂	Cr
75%	25%	0.05%	0.05%	0.02%	0.01%

KEY PROPERTIES

Saint-Gobain Ruby was designed as an alternative to pure chromium oxide with a spherical particle morphology and a formulation that enhances plasma melting characteristics. The rounded shape leads to superior flowability while the improved melt characteristics leads to higher deposit efficiencies that combine with lower intrinsic density to result in significantly higher buildup rates. Compared to standard chromium oxide, Ruby has better temperature stability (>1000°C) and produces less hexavalent chromium oxide during spraying. Ruby is also engravable with lasers for anilox roll applications.

In addition to the above, Ruby produces coatings with interesting surface energy in the printing industry. It exhibits moderate to high electrical resistivity, improved toughness, and good resistance to sliding wear and impact. Ruby can be used in place of chromium oxide for standard and more demanding applications.

TYPICAL APPLICATIONS

Doctor Blades, Paper Rolls, Anilox Rolls, Pumps, Shafts, Sealing Surfaces, Pistons, Components for Textile Machinery (e.g. Thread Guides, Guide Bars, Pulleys, etc), Chemical Industry Components, Electrical Arc Resistance (very high Breakdown Strength)

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