



Chemical Name	Zinc Iron Chromite Brown
Color Index	C I Pigment Brown 33
C.I . No.	77503
CAS No.	68186-88-9
Chemical Composition	Fe/Zn/Cr Oxide
Model No.	JF-B3301
Color Reference	Mass Tone 
	Tint Tone 1:4 

**Regulations**

EU RoHS Directive 2011/65/EU	Compliant
EN71Part 3:1994 (A1:2000/AC2002)	Compliant
US FDA 21 CFR 177.1520	Compliant
ASTM F963-08 (Clause 4.3.5)	Compliant
REACH	Compliant

**Physical Properties**
**Fastness Properties**

Appearance	Reddish brown powder	Heat resistance (°C) ≥	1000
crystal form	Spinel Pattern	Light fastness (grade 1-8 )	8
Mean particle size μm	≤ 2.5	Weather fastness (grade 1-5 )	5
Moisture Content	0.11%	Acid Resistance (grade 1-5)	5
Oil Absorption g/100g	16-23	Alkali Resistance (grade 1-5)	5
PH Value	6-9		

**Suggested Application**

- 1) Paints,coatings: Exterior coating, fluorocarbon coating,industrial coating ,aerospace and marine coatings ,automotive coating,decorative coating,camouflage coatings, coil coating ,road marking paint ,rock frescos coating ; powder coating ,oily paint ,water-based paint ;light-resistance paint,weather-resistance paint, Uv coating,high-temperature paint...etc.
- 2) Plastic: PVC, engineering plastic,masterbatch...etc.
- 3) Glass : Technology glass ,colored glass,glass lamps...etc.
- 4) Ceramics: Daily-use ceramics ,architectural ceramics,ceramic works ,engineering ceramics...etc.(on-glaze, under-glaze)
- 5) Enamelware : Daily-use enamelware ,industrial enamel, architectural enamelware...etc.(on-glaze,under-glaze)
- 6) Inks : Colored inks ,watermark inks,concave-convex inks...etc.
- 7) Building material : Colored sand ,concrete...etc.