



# Technical Data

## Synthetic Red Iron Oxides

Synthetic Red Iron Oxides from Cathay Pigments are high-quality inorganic color pigments suitable for a wide range of demanding colorant applications. Typical applications include architectural paints, industrial coatings, product finishes, wood stains, plastics, rubber, ceramics, inks, paper, concrete, stucco, cement and mortar.

Colors range from bright yellow-shade red oxide RA11, to darkest blue-shade red iron oxide RA18. As with all Cathay Pigments products the Synthetic Red Iron Oxides are produced to strict quality tolerances. Our products yield reliable performance properties which offer outstanding light fastness, opacity, chemical resistance, heat stability, exterior durability and compatibility.

Our "RA" grades are highly micronized to offer easy dispersion with high-speed impeller (Cowles type) milling equipment or single & twin screw extruders. Our economical "RS" grades are suitable for use where high-energy media filled dispersion equipment such as sandmills or horizontal mills are used or in applications where high Hegman levels of dispersion are not required. Both grades are tightly controlled for color and chemical properties.

### TYPICAL PROPERTIES

Appearance:	Red Powder
Chemical Name:	Hematite
Chemical Composition:	Fe <sub>2</sub> O <sub>3</sub>
Particle Shape:	Spherical
Pigment Index:	Red 101
Color Index:	77491
Tamped Density (g./cm <sup>3</sup> ):	0.8 – 1.2
Density (g./cm <sup>3</sup> ):	5.0
Iron as Fe <sub>2</sub> O <sub>3</sub> :	>97%
Water Soluble Matter:	<0.3%
Moisture (Vol. @ 110°C):	<1.0%
Typical pH (5% Suspension):	5 - 7

### Easy Dispersing "RA" Grade Synthetic Red Iron Oxide:

Physical Property:	RA11	RA13	RA14	RA15	RA16	RA18
Avg. Particle Size (microns)	0.30	0.40	0.45	0.50	0.65	0.90
Oil Absorption (g/100g)	25	22	20	19	18	17
Hegman	5+	6 +	6 +	6 +	6 +	6 +

### Standard "RS" Grade Synthetic Red Iron Oxide:

Physical Property:	RS10	RS11	RS13	RS14	RS18
Avg. Particle Size (microns)	0.30	0.30	0.40	0.45	0.90
Oil Absorption (g/100g)	25	24	23	22	20

The information presented in this brochure is given in good faith and is accurate to the best knowledge of Cathay Pigments. Since the application process and conditions of use of our products are beyond our control, all recommendations and suggestions are made without guarantee. We make no implied warranty of merchantability, or fitness for a particular purpose. The user has an obligation to test the products to confirm their suitability for the intended use. In no event shall Cathay Pigments be liable for damages of any kind arising from the use of reliance upon this information. We expressly disclaim that the use, either alone or in combination with other materials, will not violate the claims of any patent or rightful claim of any third party. Buyer's sole remedy shall be refund of pigment purchase price from point of purchase. Before using any chemical, read its label and Material Safety Data Sheet. 09/03

www.cathaypigments.cn

**Cathay Pigments (China) Ltd.**  
 Suite 701-706, 7/F., Tower B  
 New Mandarin Plaza  
 14 Science Museum Road  
 Kowloon, Hong Kong  
 Tel: (852) 2721 2257  
 Fax: (852) 2721 6614  
 E-mail: [info@cathaypigments.cn](mailto:info@cathaypigments.cn)  
[www.cathaypigments.cn](http://www.cathaypigments.cn)  
**Shanghai Kai Lee Iron Oxide Co., Ltd.**  
 No. 89 Zhou Zhu Road  
 Zhou Pu Town, Nan Hui District  
 Shanghai  
 Tel: 86 21 68111222  
 Fax: 86 21 68123123  
 E-mail: [kaillee@cathaypigments.cn](mailto:kaillee@cathaypigments.cn)  
[www.cathaypigments.cn](http://www.cathaypigments.cn)