

Pigment Red 57:1

1. Product Information

Product Name: Pigment Red 57:1

Colour Index No.: C.I. PR57:1

Chemical Name: Lithol Rubine, Calcium Salt Lake

Common Name: Rubine Red, Process Magenta

Chemical Class: Azo Lake Pigment

CAS No.: 5281-04-9

EINECS No.: 226-109-4

Molecular Formula: C₁₈ H₁₂CaN₂O₆ S (May vary)

Typical Structure: Based on

4-[(4-Methyl-2-sulphophenyl)azo]-3-hydroxy-2-naphthalenecarboxylic acid, calcium salt

2. Typical Physical and Chemical Properties

Property	Specification / Description
Appearance	Bluish-red powder
Hue	Standard process magenta for printing (bluish-red)
Density (g/cm³)	Approx. 1.5 - 1.8
Oil Absorption (g/100g)	Approx. 40 - 60
pH Value (10% slurry)	6.0 - 8.5
Lightfastness (1-8)	4-5 (Moderate to Good)

Property	Specification / Description
Heat Resistance (°C)	160 - 180
Water Resistance (1-5)	5 (Excellent)
Oil Resistance (1-5)	4 (Good)
Acid Resistance (1-5)	3 (Moderate)
Alkali Resistance (1-5)	3 (Moderate)

(Note: 1=Poor, 5=Excellent; Actual performance depends on application media and processing conditions)

3. Application Characteristics

Primary Applications:

Printing Inks: This is the **dominant application**. PR57:1 is the **standard magenta** used in **process printing** for magazines, catalogs, packaging (flexographic and gravure), and other commercial prints. It is a cornerstone of the CMYK color model.

Plastics: Widely used for coloring PVC, polyolefins (PP, PE), and engineering plastics. It offers a good balance of color strength, dispersibility, and heat resistance for many plastic processing methods.

Coatings: Used in industrial and decorative paints where its color and cost-effectiveness are required, but its moderate lightfastness may limit outdoor use.

Key Advantages:

Standard process magenta hue for four-color printing.

Technical Data Sheet

High tinting strength and color purity.

Good overall fastness properties for its cost.

Excellent dispersibility in various media.

Generally favorable regulatory status compared to barium-based pigments.