

Pigment Red 48:3

1. Product Information

Colour Index No.: C.I. PR48:3

Chemical Name: 2B Lake Red, Strontium Salt Lake

Chemical Class: Azo Lake Pigment

CAS No.: [15782-05-5]

EINECS No.: [239-879-2]

Molecular Formula: $C_{18}H_{12}Cl_2N_2O_6$ S Sr / $C_{18}H_{12}Cl_2N_2O_6$ SSr⁺ (Ionic form)

Typical Structure: Based on

2-[(2-Hydroxy-1-naphthyl)azo]-4-chloro-5-methylbenzenesulfonic acid, strontium salt

2. Typical Physical and Chemical Properties

Property	Specification / Description
Appearance	Bluish-red powder
Hue	Bluer and cleaner shade compared to PR48:1 and PR48:2
Density (g/cm³)	Approx. 1.5 - 1.9
Oil Absorption (g/100g)	Approx. 40 - 60
pH Value (10% slurry)	6.5 - 8.5
Lightfastness (1-8)	5-6 (Good)

Property	Specification / Description
Heat Resistance (°C)	180 - 200
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:

Plastics Coloring: The primary application. It is especially valued in **Polyolefins** like **Polypropylene (PP)** and **High-Density Polyethylene (HDPE)** due to its **excellent heat resistance** (often up to 200°C or higher), which is superior to the Calcium (48:2) and Barium (48:1) lakes. It also shows low warping in polyolefins.

Inks: Used in specific ink applications where its particular bluish shade and good rheology are required.

Coatings: Can be used in industrial coatings that require its specific coloristic properties.

Key Advantages: Bluish, clean red shade.

Superior heat resistance compared to other PR48 variants, making it suitable for engineering plastics. Good lightfastness for many applications. Low warpage in polyolefins.