Pigment RED SY-226

1. Product Information

Colour Index No.: C.I. PR48:4

Chemical Name: 2B Lake Red, Manganese Salt Lake

Chemical Class: Azo Lake Pigment

CAS No.: [5280-78-4] / [11097-29-7]

EINECS No.: [226-109-3]

Molecular Formula: $C_{18}H_{12}Cl_2MnN_2O_6S$

Typical Structure: Based on

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

manganese salt

2. Typical Physical and Chemical Properties

Property	Specification / Description
Appearance	Deep maroon or bordeaux red powder
Hue	Very bluish-red, much bluer and darker than other PR48 types
Density (g/cm³)	Approx. 1.6 - 2.0
Oil Absorption (g/100g)	Approx. 40 - 60
pH Value (10% slurry)	5.5 - 7.5
Lightfastness (1-8)	6-7 (Very Good to 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: Used in various plastics, including PVC and polyolefins, where its specific deep, bluish shade is required. Its heat resistance is good.

Coatings: Valued in certain industrial and automotive coating systems for its **deep maroon shade** and **good lightfastness**.

Inks: Less common in general packaging inks but may be used in specialty ink applications for its unique color.

Key Advantages: Unique deep, bluish-red (maroon/bordeaux) shade.

Very good lightfastness, superior to many other PR48 types.Good heat resistance.

Important Limitations & Warnings:

Manganese Content: Due to its manganese content, this pigment must be used with caution, especially in applications involving high-temperature processing (e.g., plastics, baking enamels). Under certain conditions, manganese can act as a pro-degradant, potentially leading to **polymer degradation** or **over-baking** in coatings, which may manifest as reduced molecular weight, embrittlement, or color change.

Application-specific testing under end-use conditions is critical.