## EMD Performance Materials

# hoc boange Meoxal® Wahiba Orange

Product Information

# **meoxal**<sup>®</sup>

# be brilliant. impress

High brilliance with outstanding saturation

Elegant sparkle effects

- Unique flop behaviour
- Shelf life of two years
- Luminous metal pigments

# see the heat

The desert – a vast landscape that has exerted a special fascination on mankind since the beginning of time. The radiant sun shines with all its power onto millions and billions of grains of sand and refracts on their surfaces to become sparklingly reflected in a multitude of ways. The wild sea of sand immerses us into a world of bright and vibrant colors. It is just this magic of the moment that inspired our new product range Meoxal<sup>®</sup>.

With Meoxal<sup>®</sup> we have translated experience, innovation and inspiration into a new form of pigments based on aluminum flakes. Thanks to the combination of metal oxides, new flake technology and patented intermediate layering know-how, Meoxal<sup>®</sup> Wahiba Orange impresses with its outstanding color saturation and high brilliance. In combination with its luminous slightly sparkling finish, the color is so intense that you can almost feel the desert's blazing heat.



100.0% Meoxal® Wahiba Orange PMC<sup>1</sup> in dry film 18.0%

83.7% Meoxal® Wahiba Orange
16.3% Carbon Black
PMC<sup>1</sup> in dry film 21.5%

50.0% Meoxal® Wahiba Orange
25.0% Paliogen® Red L 3875<sup>2</sup>
25.0% Hostaperm® Pink E-TS<sup>3</sup> PMC<sup>1</sup> in dry film 20.0%

42.2% Meoxal® Wahiba Orange
54.9% C.I. Pigment Brown 25
2.9% Carbon Black
PMC<sup>1</sup> in dry film 23.7%

### **APPLICATION**

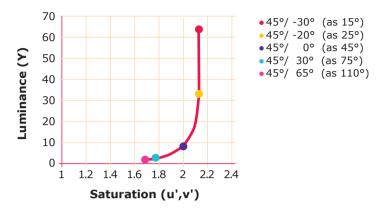
Meoxal<sup>®</sup> F120-58 CWT Wahiba Orange is supplied as a paste, consisting of carbitol and 70% pigment. CWT stands for "Carbitol and Weather Treated" and is a specific surface treatment for this new class of pigments. CWT improves the incorporation into many paint systems, especially in waterborne systems for which no additional passivation process is required. It fulfills especially high demands for outdoor applications such as automotive coatings and other high-end paint applications.

### Schematic composition of Meoxal<sup>®</sup> Wahiba Orange

Metal oxide Fe<sub>2</sub>O<sub>3</sub> Passivation interlayer Aluminum flake CWT Surface Treatment

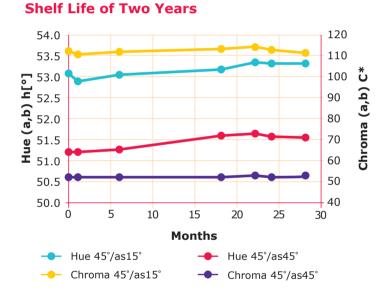


### **Outstanding Saturation**

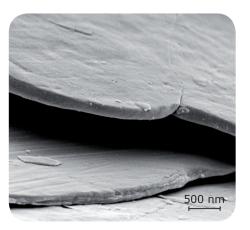


hot

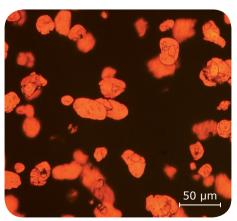
u', v' color coordinates of a fullshade coating (PMC1 = 18%, coating thickness 15  $\mu m,$  on a black substrate).6



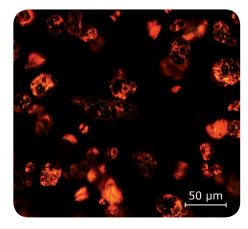
Hue and Chroma measured on fullshade panels over black,  $PMC^1$  18% (dry film), layer thickness of 15  $\mu m$ 



Typical scanning electron microscope image of Meoxal<sup>®</sup> F120-58 CWT Wahiba Orange



Light microscope bright field image (opt. magn. 200x) of Meoxal<sup>®</sup> F120-58 CWT Wahiba Orange



Light microscope dark field image (opt. magn. 200x) of Meoxal<sup>®</sup> F120-58 CWT Wahiba Orange

# details

## **PRODUCT DATA**

Ordering Information		Positioning	
Product line	Meoxal®	Color	Masstone orange
Nomenclature	F120-58	Sparkle	Color metallic effect
Name	Wahiba Orange	Hiding power	Semi-transparent
Item No.	1.41175	Surface treatment	CWT
Package size	150 g, 1 kg, 15 kg	Preparation	Paste with 70% pigment

## **TECHNICAL DATA**

Physical Properties	Value	Method
Form	Paste	
Non volatile material	69-71%	In-house method
Bulk density	76 g/100 ml	In-house method
Flash point carbitol	94°C	
Ignition temperature carbitol	190-220°C	
Water solubility of the pigment	Insoluble	In-house method
Electrical conductivity of the aqueous suspension	≤100 µS/cm	
pH of the aqueous suspension (10%)	4-7	ISO 787-9
Particle size distribution <sup>4</sup>	5–30 µm	Laser diffraction
d10, d50, d90	9–12, 16–19, 27–33 µm	Laser diffraction

## WEATHERING DATA

Test	Test Conditions	Test Results
Humidity resistance test DIN EN ISO 6270-2⁵	PMC <sup>1</sup> : 4.0% Meoxal <sup>®</sup> F120-58 CWT Wahiba Orange Duration: 240 h Temperature: 40°C Humidity: 100%	<ul> <li>Gloss after 24 h (20°): 99.0%</li> <li>DOI after 24 h: 92.3%</li> <li>Cross hatch 1 h: 0</li> </ul>
Short term weathering SAE J 2527 <sup>5</sup>	$\text{PMC}^{1}$ : 4.0% Meoxal® F120-58 CWT Wahiba Orange, black reduction Duration: 4000 h	<ul> <li>Gloss after 4000 h: 98.0%</li> <li>Color Change ΔE after 4000 h<sup>6</sup>: 25°/2.2; 45°/1.0</li> </ul>
Gassing stability	Waterborne OEM basecoat PMC <sup>1</sup> : 4.0% Meoxal® F120-58 CWT Wahiba Orange Duration: 30 days Temperature: 40°C	Developed gas: 6 ml

<sup>1</sup> Pigment Mass Concentration (PMC): Mass pigment based on total mass coating

<sup>2</sup> Paliogen® is a trademark of BASF SE, Ludwigshafen, Germany

<sup>3</sup> Hostaperm<sup>®</sup> is a trademark of Clariant International Ltd, Muttenz, Switzerland

<sup>4</sup> 80% of particles within range

<sup>5</sup> Test system: 2-coat OEM thermosetting paint

<sup>6</sup> Measured with BYK-mac, BYK-Gardner GmbH

The information on this page is typical technical data to characterize the pigment. These values are not meant as specifications and they do not have binding character. The product specification is available separately, on request. Products are warranted to meet the specifications set forth on their label/packaging and/or certificate of analysis at the time of shipment or for the expressly stated duration. EMD provides information and advice on application technologies and relevant regulations based upon its current knowledge and opinion. EMD MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE REGARDING OUR PRODUCTS, THEIR APPLICATION OR ANY INFORMATION PROVIDED IN CONNECTION THEREWITH. EMD shall not in any event be liable for incidental, consequential, indirect, exemplary or special damages of any kind resulting from any use or failure of the products. Customer is responsible for and must independently determine the suitability of EMD's products for its products, intended use and processes. The foregoing information and suggestions are also provided without warranty of noninfringement as to intellectual property rights of third parties and shall not be construed as any inducement to infringe the rights of third parties. Customer shall be responsible for obtaining any applicable third party intellectual property licenses. All sales are subject to EMD's complete Terms and Conditions of Sale. Prices are subject to change without notice. EMD reserves the right to discontinue products without prior notice.

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