

## **DX Series**

# **Unleaded Borosilicate Glass Enamel**

#### Markets and industries

Enamels for the decoration of decorating borosilicate glass.

| COLOR       | PART<br>NUMBER | PANTONG  |
|-------------|----------------|----------|
| RED         | DX 10151*      | 485C     |
| IRON RED    | DX 11151       | 484C     |
| DARK RED    | DX 12151*      | 201C     |
| ORANGE      | DX 13151*      | Orange C |
| YELLOW      | DX 20151       | 102C     |
| YELLOW      | DX 21151*      | 587C     |
| WHITE       | DX 30151       |          |
| GREEN       | DX 40151       | 348C     |
| OLIVE GREEN | DX 40251       | 368C     |
| BLUE GREEN  | DX 50251       | 322C     |
| BLUE        | DX 50151       | 2175C    |
| BROWN       | DX 60151       | 4695C    |
| BLACK       | DX 70151       | 4        |

<sup>\*</sup> cadmium containing colors

## **Chemical composition**

Enamels of DX series do not contain heavy metals like Pb, Cd, Hg and Cr<sup>6+</sup> except some colors like red, yellow and orange which have to use cadmium pigments to satisfy the requirements by customers.

## **Firing conditions**

Firing from room temperature to 630~650°C in a long cycle of 45 min to 1.5 hour, keep warm for about 10 minutes;

from 630°C to 700°C in a short cycle.

### **Expansion coefficient**

Under the testing equipment, the average value is 60 x10<sup>-6</sup>/°C.

### Chemical resistance

Alkaline resistance assessment according to ASTM C675-91,

9.1 % sodium hydroxide, 0.9 % trisodium phosphate, 2 hours at 88°C. Grade: 0 to 1 cycle.

Acid resistance assessment according to ASTM C724-91,

10 % citric acid, 3.7% hydrochloric acid, 15mins at 22±2°C, Grade: 7.

#### Limitation of Warranty and Liability

We believes that the information shared in this document is accurate at the time of its publication. It is not a product specification, either in whole or in part. Users are responsible for determination of the suitability of this product and for testing in specific applications. Please test first before use. Nothing in this document shall be construed as a license for use that infringes upon any property rights of any third party. Please refer to the Safety Data Sheet (SDS) for safe use, handling and disposal information.



# DX 系列

# 无铅硼硅玻璃釉料

# 市场行业

用于装饰硼硅玻璃的釉料。

| 颜色  |   | 编号        | 潘通色卡号    |
|-----|---|-----------|----------|
| 红色  |   | DX 10151* | 485C     |
| 铁红色 | D | DX 11151  | 484C     |
| 深红色 |   | DX 12151* | 201C     |
| 橘红色 |   | DX 13151* | Orange C |
| 黄色  |   | DX 20151  | 102C     |
| 黄色  |   | DX 21151* | 587C     |
| 白色  |   | DX 30151  |          |
| 绿色  |   | DX 40151  | 348C     |
| 橄榄绿 |   | DX 40251  | 368C     |
| 蓝绿色 | V | DX 50251  | 322C     |
| 蓝色  |   | DX 50151  | 2175C    |
| 棕色  |   | DX 60151  | 4695C    |
| 黑色  |   | DX 70151  |          |

<sup>\*</sup> 颜色中含镉

## 化学成分

DX 系列釉料不含铅、镉、汞、+6 价铬等重金属,除了为满足客户需求而含镉的一些颜色,像红色、黄色和桔色。

## 焙烧工艺

经过 45 分钟到 1.5 小时,从室温升温到 630~650°C 后,保温 10 分钟左右; 或者经过快烤 630°C~700°C。

## 膨胀系数

在检测设备测试下,平均数值在 60×10<sup>-6</sup>/℃。

## 耐化学性

耐碱性评估根据 ASTM 标准 C675-91, 9.1%氢氧化钠, 0.9%磷酸钠, 88°C 下 2 小时。等级: 0至 1 个循环。

耐酸性根据 ASTM 标准 C724-91, 10%柠檬酸, 3.7%盐酸, 22±2°C 下 15 分钟, 等级: 7。

#### 保证和责任限制

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