

## Technical Information



### 732 Series Lead-Free and Cadmium-Free Interference Colors for the Decoration of Porcelain, Bone China, Vitreous China and Earthenware

#### Product Codes and Color Shades

**Table 1: Firing Range: 780-800°C**

Product No.	Color Shade	Product No.	Color Shade
117321	Green	117322	Bluish green
127321	Blue	127322	Violet blue
137321	Yellow	177321	Red
177322	Magenta	187321	Violet
107321	Flux		

**Table 2: Firing Range: 760-780°C**

Product No.	Color Shade	Product No.	Color Shade
127324	Blue	137324	Yellow
177324	Red		

Interference colors applied on dark glazes (e.g. cobalt blue or black) achieve an intense bright and glossy tone. On light glazes, interference colors give the impression of a transparent coating that shimmers green, blue, red, or golden when viewed at certain angle.

#### Heavy Metal Release

Colors in this Series are controlled lead-free and Cadmium-free with controls in place to maintain upper limits of 600 ppm lead and 100 ppm cadmium. Ferro maintains and manages the heavy metal limit through careful monitoring of raw materials combined with accurate processing and continuous precise quality control. All colors in the 732 Series meet the limits for heavy metal release in accordance with California Prop. 65 if fired correctly.

#### Application

Colors in this Series have excellent processing properties in all conventional decorating methods including direct and indirect screen printing, and

hand painting, brushing application.

#### Screen printing

we recommend polyester screens: 150-200 mesh/inch for table 1 colors, 80-110 mesh/inch for table 2 colors and 250-300 mesh/inch for cover flux.

We recommend the following ratio of color to medium:

Interference color powder: medium (80820) = 10: 10-12

Cover flux powder: medium (80820) = 10: 8-10

**Please note:** To avoid pigment breakdown, color pastes and color suspensions should not be processed in a ball mill.

**Spraying**

Color suspensions for spraying can be made with water-soluble or oil-based medium.

**Machine Lining and Banding**

Color suspensions applied via brushes, steel- or neoprene-rollers are generally based on water-soluble media.

**Miscibility**

Interference colors of the similar shade can be mixed with each other, different color group should not be mixed. Such as 117321 green can be mixed with 117322 blue green, but should not be mixed with 177321 red.

**Firing**

The best firing temperature is related to glaze and firing cycle etc. We recommend 780-800°C for table 1 and 760-780°C for table 2.

**Color Deposit**

The maximum color deposit after firing, depending on the glaze and the firing temperature etc. Too thick color deposit may cause blistering. We recommend the customer to do the trials prior to production.

**Chemical Resistance**

The chemical resistance of the fired color layers is influenced by the color deposit, the firing conditions and the glaze etc. The colors do not show a visible attack with 4% acetic acid solution (22±2°C,24h) as well as with 5% sodium carbonate solution (60±2°C,32h)

**Storage**

The colors should be stored in a dry place. Opened containers should be closed carefully. To ensure that the colors have not absorbed any humidity, we recommend drying the color powder at approx.130°C prior to pasting.

**Limitation of Warranty and Liability**

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