

Technical Information



752 Series Metallic Glass Enamels

Product Codes and Color Shades

Product code	Shade	Product code	Shade
137521	Metallic yellow	137522	Metallic yellow
137523	Metallic yellow (reddish)	137524	Metallic yellow
137525	Metallic yellow (yellowish)	137526	Metallic yellow
137527	Metallic yellow (greenish)	177521	Metallic red
197521	Metallic white		

Heavy Metal Release

Colors in this series contain lead and cadmium and lithium, it's not recommend to apply on pressurized container .

Application

These enamels are recommended for the decoration of soda-line glass tumblers and bottles, which can be used for single-trip and multiple -trip.

Miscibility

These colors are intermixable, we recommend performing preliminary tests before launching production with color mixtures from this system. Additional colors are available on demand.

Firing

We recommend firing temperature 580-620°C in a cycle of 1-1.5h, with a soaking period of approx.10 min, depending on both the type of furnace and the volume of ware load. We recommend an oxidizing atmosphere to give optimal fired appearance and brightness. It is essential to maintain good ventilation and an efficient extraction of the combustion gases and the products resulting from decomposition of the medium.

Chemical Resistance

Acid resistance: ASTM C 724 (10%citric acid and 3.7% HCl, 15min; Grade 4 or better .

Alkali resistance: ASTM C 675 (9.1%NaOH+0.9Na3PO4·12H2O, 4 h; Grade 5 or better

1.	No attack apparent.
2.	Appearance of iridescence or visible stain on the exposed surface when viewed at a 45 angle but not apparent at angles less than 30.
3.	A definite stain which does not blur reflected images and is visible at angles less than 30.
4.	Definite stain with a gross color change or strongly iridescent surface visible at angles less than 30and which may blur reflected images.
5.	Surface dull or matte with chalking possible.
6.	Significant removal of enamel with pinhole evident.
7.	Complete removal of enamel in exposed area.

Expansion Coefficient (CTE)

The CTE of the colors from this series is about $85-95 \times 10^{-7}/^{\circ}\text{C}$ (30-300 $^{\circ}\text{C}$). This system is suitable for the decoration of most soda-line glasses.

Supplying Forms

Our container glass enamels from all systems can be provided in Powder form and the Thermoplastic pastes (TP) form for multi-color hot screen printing.

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 $^{\circ}\text{C}$ prior to pasting.

Thermoplastic paste should be stored in cool and dry conditions, not below 5 $^{\circ}\text{C}$ or above 35 $^{\circ}\text{C}$. Partly used tins must be tightly sealed after use. If stored as recommended, the shelf life is 2 years after production date.

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