

Our new Unleaded Enamel Range:

We now have available a range of unleaded, intermixable, dishwasher-durable and acid-resistant onglaze colours suitable for application on unleaded tableware glazes. The range also includes enamels based on the Cadmium Sulphide/Selenide pigments, yellow, orange. mid-red, dark red and bright green, which have the same firing range as the other enamels.

The ULE range is technically lead free, and with the exception of the cadmium pigment based enamels, is also cadmium free. The lead content is less than 0.2%, typical analyses being less than 0.01%. Cadmium content, other than the exceptions, is less than 0.05%.

Chemical Durability

Dishwasher durability is tested by immersion in a 0.5% Calgonite solution at 78 0C, which is an accelerated alternative to 500 consecutive dishwasher cycles. The results show no appreciable deterioration of colour or gloss after 36 hours exposure. Acid resistance is tested by immersion in 4% acetic acid solution at 22 0C for 24 hours in accordance DIN 51033 1986. Results are typically less than 0.05 mg Pd/dm 2 and 0.01 mg. Cd/dm 2.

With the exception of the Cobalt blues, there is normally no visible deterioration of colour or gloss in the acid test. In the case of the Cobalt blues the degree of acid attack is very dependent on the firing cycle, at some, higher, firing cycles the degree of attack is minimal. When required, an overprint flux is available to protect the blue enamel from attack. This flux is also compatible with the other enamels.



Leadfree On-Glaze Enamels 750°C to 930°C	
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