

78192 Inglaze reactive flux 1000–1260°C

Lead-and cadmium-free inglaze reactive flux

1. General Information

Features!

- Vivid embossing effect.
- Suitable for a wide range of glazes and firing conditions.
- Lead and cadmium free.



78192 is a lead-and cadmium-free, intermixable, inglaze reactive flux for porcelain, bone china, earthenware and vitreous china.

It is suitable for screen-transfer printing, direct printing, spraying, pad printing and hand painting.

2. Firing Conditions

Type of ware	Firing range
Hard porcelain	1,230–1,260°C
Porcelain	1,180–1,230°C
Bone china	1,000–1,050°C
Earthenware	1,000–1,050°C
Fine china	1,000–1,200°C
Vitreous china	1,000–1,200°C

78192 is suitable for both normal firing of 3–10 hours and fast-firing of 60–120 minutes, cold-to-cold conditions. They should also be only used with lead-free colors and glazes. It must be fired only under lead-free conditions to avoid heavy lead release.

3. Application

78192 is suitable for screen-transfer printing, direct printing, spraying, pad printing and hand painting. It can be used with **SELECTION 78** colors and it is recommended to used alongside relief materials to emboss effectively

4. Particle size of Distribution (P.S.D.)

Product	D ₅₀ average	D ₁₀₀ biggest
78192 reactive flux	5.0 μ m (±1.0)	35 μ m (±5.0)

5. Printing

【5.1 Mesh size】

78192 is recommended to print over or alongside other colors.

We recommend one time printing by mesh sizes that are 175–260 mesh/inch (68–100 thread/cm) for all screen applications.

Normally thicker printing shows a more obvious reactive effect

【5.2 Medium ratio】

78192 reactive flux : Medium PM2	10 : 7–8
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Lead-and-cadmium free inglaze colors absorb any moisture easily. Therefore, keep powder colors in a dry place. We recommend drying the color powder before using.

6. Mixability

Mixing with other colors: **78192** can be mixed with all of **SELECTION 64, 66** and **78** inglaze colors in any proportions. However, it shows less reactive effect after mixing with other colors.

Mixing flux: **78101** flux is suitable for mixing with **78192** to lighten and to reduce the reactive effect if necessary.

7. Chemical durability

Chemical durability of **78192** depends on type of ware, glaze, kiln, color deposit and firing conditions. The following are the results of tests on porcelain fired at 1220°C, with 10 minutes of soaking time and 120 minutes of cold-to-cold firing conditions of gas kiln in production.

【7.1 Residual lead and cadmium content】

78192 contain less than 90 ppm residual lead and less than 40 ppm residual cadmium and are therefore in compliance with Californian Proposition 65, FDA, CPSIA, EU, and Japanese requirements.

【7.2 Lead and cadmium release】

According to the DI EN 1388-1-2 test, **78192** shows lead and cadmium releases below AAS limits.

【7.3 Acid resistance】

According to the DI EN 1388-1-2 test, **78192** does not show any visible attack after immersion in a 4% acetic acid solution for 24 hours at a room temperature $22 \pm 2^{\circ}\text{C}$.

【7.4 Alkali resistance】

According to the ASTM C556-88 test, **78192** does not show visible attack for up to 6 hours.

8. Safety Data Sheet (SDS)

Safety data sheet (SDS) of **78192** is available on request.

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