
**Vitreous and porcelain enamels —
Enamelled cooking utensils —
Determination of resistance to thermal
shock**

*Émaux vitrifiés — Ustensiles de cuisson émaillés — Détermination de la
résistance aux chocs thermiques*



Foreword

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This second edition cancels and replaces the first edition (ISO 2747:1973), which has been technically revised.

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Vitreous and porcelain enamels — Enamelled cooking utensils — Determination of resistance to thermal shock

1 Scope

This International Standard specifies a method of determining, by successive thermal shock tests, the behaviour of vitreous and porcelain enamelled cooking utensils and similar articles under sudden changes of temperature (resistance to thermal shock).

2 Definitions

For the purposes of this International Standard, the following definitions apply.

2.1 thermal shock test: Series of operations commencing with the pouring of cold water into the heated test specimen and ending when the thermal shock temperature for the subsequent thermal shock test has been reached.

2.2 thermal shock temperature: Temperature to which the test specimen is heated before being chilled with cold water.

2.3 thermal shock resistance: Difference between the thermal shock temperature and the water temperature at which the test specimen shows the first damage on chilling or during subsequent heating.

2.4 damage: Chipping or tension cracks in the enamel visible at a distance of 250 mm by normal sight or made visible by using coloured penetrating fluids.

3 Principle

A series of single thermal shock tests is conducted with a temperature increase of 20 °C between each thermal shock obtained by heating the test specimen from the outside and then chilling it inside with water at 20 °C.

For the first test, the thermal shock temperature amounts to 200 °C. The test ends when the first visible damage occurs.