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# INTERNATIONAL STANDARD



# 2734

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## Vitreous and porcelain enamels — Apparatus for testing with alkaline liquids

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## FOREWORD

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Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 2734 was drawn up by Technical Committee ISO/TC 107, *Metallic and other non-organic coatings*, and circulated to the Member Bodies in June 1972.

It has been approved by the Member Bodies of the following countries :

Australia	Italy	Sweden
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Germany	New Zealand	Turkey
Hungary	Poland	United Kingdom
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No Member Body expressed disapproval of the document.

# Vitreous and porcelain enamels – Apparatus for testing with alkaline liquids

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the apparatus to be used for testing the resistance of flat surfaces of vitreous and porcelain enamels to attack by solutions such as hot sodium hydroxide and other alkaline agents.

## 2 REFERENCES

ISO/R 868, *Plastics – Determination of indentation hardness of plastics by means of a durometer (Shore hardness)*.

ISO 2745, *Vitreous and porcelain enamels – Determination of resistance to hot sodium hydroxide*.

## 3 APPARATUS

The testing apparatus is composed of the parts specified in 3.1 to 3.6.

When the test solution is hot, the apparatus is used in conjunction with a thermostatically controlled liquid bath which is in accordance with the International Standard for the test method.

NOTE – For the test method for the determination of resistance to hot sodium hydroxide, see ISO 2745.

The testing apparatus is composed of the following parts :

**3.1 Cylinder** with a welded-on filling piece shown in figure 2, consisting of stainless steel (for example chromium-nickel steel).

**3.2 Two protective envelopes** shown in figure 3, consisting of rubber with Shore hardness A/70/1 according to ISO/R 868, resistant to alkaline solutions at 100 °C.

**3.3 Two frame plates** shown in figure 4, consisting of stainless steel or steel with a corrosion-resistant coating, or of non-ferrous metal.

**3.4 Four screw bolts** shown in figure 5, consisting of corrosion-resistant material, welded into the holes in one of the frame plates.

**3.5 Four wing nuts** of corrosion-resistant material and with threads fitting the screw bolts.

**3.6 Stopper** shown in figure 6, consisting of rubber with Shore hardness A/70/1 according to ISO/R 868, resistant to alkaline solutions at 100 °C.

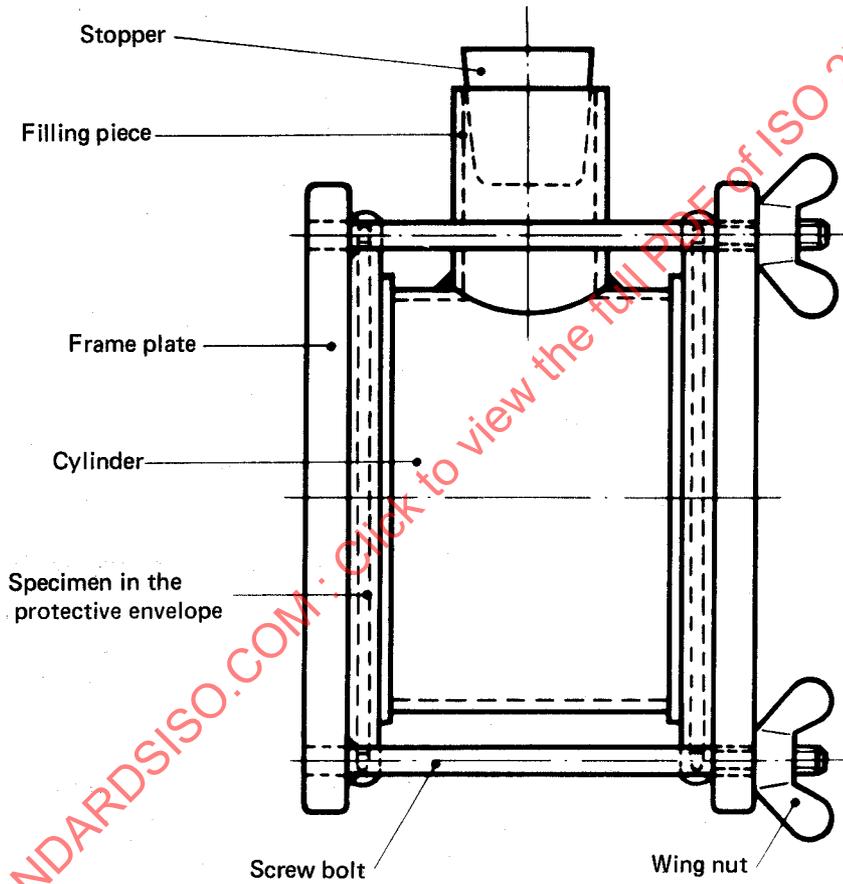


FIGURE 1 – Testing apparatus

Dimensions in millimetres

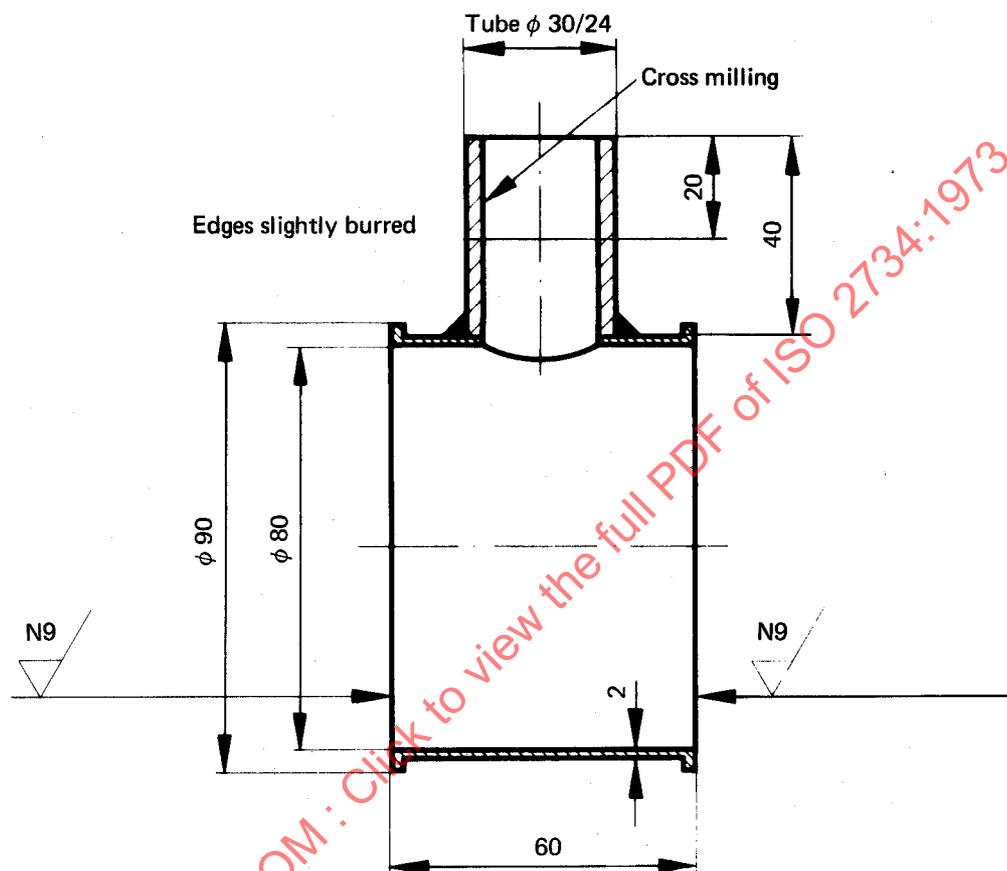


FIGURE 2 – Cylinder

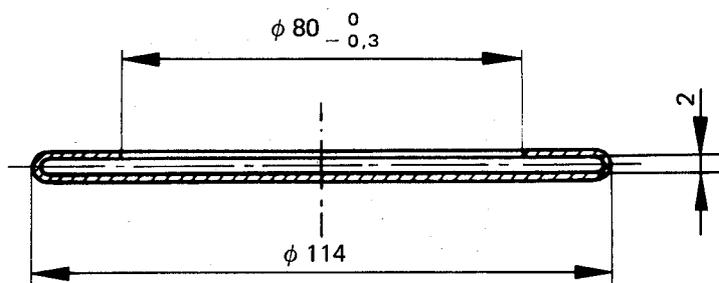


FIGURE 3 – Protective envelope

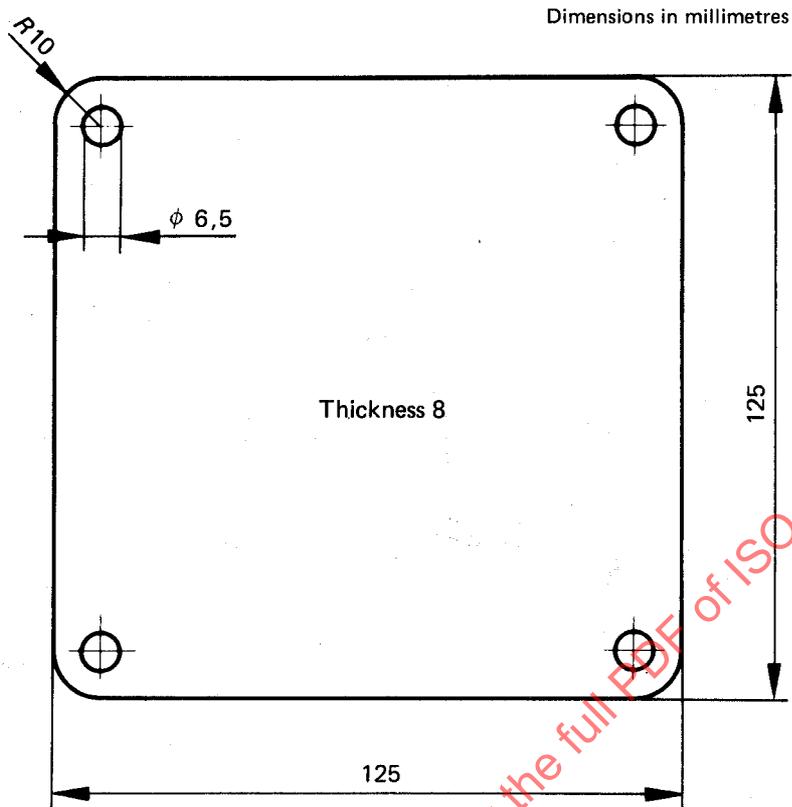


FIGURE 4 – Frame plate

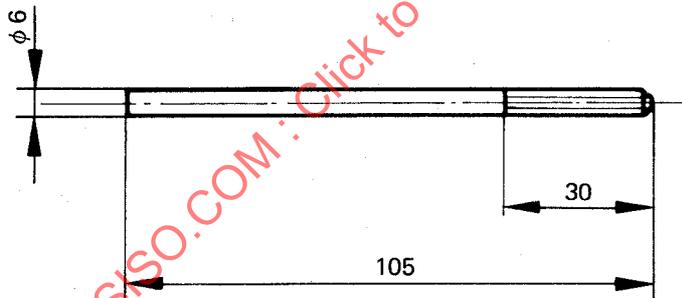


FIGURE 5 – Screwed bolt

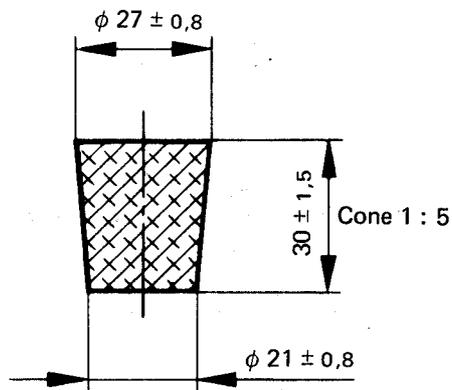


FIGURE 6 – Stopper