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**INTERNATIONAL STANDARD**



**5023**

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## **Phlogopite mica splittings — Thermal classification**

*Mica phlogopite en clivures — Classification thermique*

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**Descriptors :** mica, phlogopite mica, classification, high temperature tests, thermal endurance tests, thermal resistance.

## 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 5023 was developed by Technical Committee ISO/TC 56, *Mica*, and was circulated to the member bodies in July 1976.

It has been approved by the member bodies of the following countries:

Czechoslovakia	Mexico	Turkey
Egypt, Arab Rep. of	Netherlands	U.S.A.
France	Romania	U.S.S.R.
India	South Africa, Rep. of	Yugoslavia

No member body expressed disapproval of the document.

# Phlogopite mica splittings – Thermal classification

## 0 INTRODUCTION

Phlogopite mica differs from muscovite mica in composition, colour and some other physical properties. The classification which has been established for muscovite mica on the basis of its visual properties and defects in structure cannot, therefore, be applied to phlogopite mica. In this International Standard, the phlogopite mica splittings are classified according to their thermal resistance.

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies a method of classifying phlogopite mica splittings according to their thermal resistance.

## 2 CLASSIFICATION

Phlogopite mica shall be classified into six classes according to its resistance to elevated temperature, as given in the table.

## 3 METHOD OF TESTING THERMAL RESISTANCE

Place a test sample consisting of at least 10 splittings in an oven, both sample and oven being at laboratory temperature. Do not use the first one-third available space near the door of the oven and do not place the splittings one over the other. Gradually raise the temperature of the oven in 30 min to the temperature fixed for the class of mica in question. Maintain this temperature constant within the tolerances specified in the table for 30 min and then allow the oven to cool naturally before taking out the test sample. Once the oven has cooled to room temperature,

compare the tested splittings with splittings from the same lot but which have not been subjected to the test.

## 4 EXPRESSION OF RESULTS

Consider mica as resistant to the temperature at which the test was carried out if none of the following changes is visible on any of the tested splittings :

- increase in thickness of more than 25 %;
- change in the nature of the mica; for example, appearance of silvery stains.

TABLE – Thermal classification of phlogopite mica splittings

Class	Testing temperature
Mica "150 °C" (mica withstanding a temperature of 150 °C)	150 ± 3 °C
Mica "250 °C" (mica withstanding a temperature of 250 °C)	250 ± 5 °C
Mica "400 °C" (mica withstanding a temperature of 400 °C)	400 ± 5 °C
Mica "600 °C" (mica withstanding a temperature of 600 °C)	600 ± 10 °C
Mica "750 °C" (mica withstanding a temperature of 750 °C)	750 ± 10 °C
Mica "900 °C" (mica withstanding a temperature of 900 °C)	900 ± 15 °C