
International Standard



710/7

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Graphical symbols for use on detailed maps, plans and geological cross-sections — Part 7 : Tectonic symbols

Symboles graphiques à utiliser sur les cartes, les plans et les coupes géologiques détaillés — Partie 7 : Symboles tectoniques

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

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 710/7 was developed by Technical Committee ISO/TC 82, *Mining*, and was circulated to the member bodies in October 1983.

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

Austria	France	United Kingdom
Bulgaria	Germany, F.R.	USSR
China	Poland	Yugoslavia
Czechoslovakia	Romania	

The member body of the following country expressed disapproval of the document on technical grounds :

Australia

Graphical symbols for use on detailed maps, plans and geological cross-sections — Part 7 : Tectonic symbols

0 Introduction

ISO 710, a series of documents on graphical symbols for use on detailed maps, plans and geological cross-sections, comprises the following parts :

Part 1 : General rules of representation.

Part 2 : Representation of sedimentary rocks.

Part 3 : Representation of magmatic rocks.

Part 4 : Representation of metamorphic rocks.

Part 5 : Representation of minerals.

Part 6 : Representation of contact rocks and rocks which have undergone metasomatic, pneumatolytic or hydrothermal transformation or transformation by weathering.

Part 7 : Tectonic symbols.

1 Scope and field of application

This part of ISO 710 provides a series of graphical symbols to represent tectonic phenomena on detailed maps, particularly large-scale maps, or plans and geological cross-sections.

This part of ISO 710 includes symbols for

- strata, faults, joints and schistosity;
- folds and monoclines;
- lineations and axes.

2 Principles of representation

2.1 The symbols used are intended to characterize the existing state as found in nature and shall not be used to represent genetic processes and their connection.

2.2 The tectonic elements can be regarded as surfaces or lineations characterized by their situation in space.

2.2.1 Planes

Tectonic planes are represented by their traces in the reference plane.

The basic symbol for traces is a continuous line to which additional symbols characterizing the nature of the surface are added.

2.2.2 Lineation

Lineations are represented by their projection on the reference plane.

The basic symbol for the projection of the lineations is a compound line of alternate dots and dashes to which additional symbols characterizing the nature of the lineations in question are added.

2.2.3 Indication of position

The positions of the planes and lineations are given by the oriented representation of their traces and projections on the map or plan.

On plans, a slope is expressed by an arrow pointing in the direction of the slope; the angle of dip (slope) is indicated in grades or degrees.

In the case of an inverted stratum, the arrow is curved with its point indicating the direction of slope of the inverted stratum.

2.3 A greater or lesser degree of certainty as to the existence and orientation of a tectonic element can be shown by means of a variation on the basic symbol (see table 1).

In order to be termed "certain", the existence of a tectonic element shall be confirmed with a sufficient degree of accuracy.

If necessary, unconfirmed tectonic elements can be divided into two categories : "probable" and "possible".

2.4 If the information is obtained from another document, this can be indicated in a suitable manner, for example by putting it in parentheses (see figure 1).

2.5 In the case of information obtained by a geophysical method, the method used can be indicated in writing (see figure 2).

3 Representation of special planes

Planes to be represented are characterized by varying the basic symbol and by using additional symbols. The symbols (basic symbols and additional symbols) to be used for representing strata, faults, joints and schistosity are given in table 2. The principles stated in clause 2 shall be complied with for these symbols.

If the direction of sinistral or dextral movement in connection with the trace of a fault or with the projection of the line of intersection of a fault should be shown, the following symbol should be used :

Fault with the direction of sinistral or dextral movement : ⇌

Table 1 — Basic symbols

Phenomenon to be represented	Certain	Uncertain	
		Probable	Possible
Traces of surfaces	_____	_____	_____?
Projection of lines	_____	_____	_____?

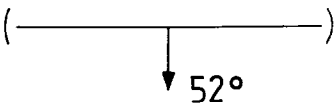


Figure 1 — Information obtained from another document

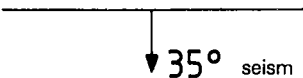


Figure 2 — Information obtained by a geophysical method