International Standard



INTERNATIONAL ORGANIZATION FOR STANDARDIZATION+MEXCHAPOCHAR OPPAHUSALUH NO CTAHCAPTUSALUH+ORGANISATION INTERNATIONALE DE NORMALISATION

## Indexable hardmetal (carbide) inserts with wiper edges, without fixing hole — Dimensions

Plaquettes amovibles en métaux-durs (carbures métalliques) avec arêtes de planage, sans trou de fixation - Dimensions

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Descriptors : tools, cutting tools, carbide tools, inserts, dimensions, designation, marking.

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 3365 was prepared by Technical Committee ISO/TC 29, *Small tools*.

ISO 3365 was first published in two parts: ISO 3365/1-1977 and ISO 3365/2-1980. This second edition cancels and replaces both parts of the first edition, of which it constitutes a technical revision.

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# Indexable hardmetal (carbide) inserts with wiper edges, without fixing hole – Dimensions

## 1 Scope and field of application

This International Standard specifies the dimensions of indexable hardmetal (carbide) inserts with wiper edges, without fixing hole. These inserts are primarily intended to be mounted on milling cutters by top or wedge clamping.

#### 2 References

ISO 513, Application of carbides for machining by chip removal — Designation of the main groups of chip removal and groups of application.

ISO 883, Indexable hardmetal (carbide) inserts with rounded corners, without fixing hole – Dimensions.

ISO 1832, Indexable inserts for cutting tools – Designation.

ISO 3364, Indexable hardmetal (carbide) inserts with rounded corners, with cylindrical fixing hole – Dimensions.

ISO 6987/1, Indexable hardmetal (carbide) inserts with rounded corners, with partly cylindrical fixing hole — Part 1: Dimensions of inserts with 7 degrees normal clearance.

## 3 Types of inserts

The types of indexable hardmetal (carbide) inserts specified in this International Standard are the following:

- TP .... PPN:
  symmetrical triangular inserts with 11° normal clearance,
  90° cutting edge angle and 11° wiper edge normal clearance;
- TP .... PDR; TP .... PDL: asymmetrical triangular inserts with chamfered corners, 11° normal clearance, 90° cutting edge angle and 15° wiper edge normal clearance;
- TE .... PER; TE .... PEL: asymmetrical triangular inserts with chamfered corners, 20° normal clearance, 90° cutting edge angle and 20° wiper edge normal clearance;

- SN .... ENN: symmetrical square insert with chamfered corners, 0° normal clearance, 75° cutting edge angle and 0° wiper edge normal clearance;
- SP .... EDR; SP .... EDL: asymmetrical square insert with chamfered corners, 11° normal clearance, 75° cutting edge angle and 15° wiper edge normal clearance;
- SN .... ANN: symmetrical square insert with 0° normal clearance, 45° cutting edge angle and 0° wiper edge normal clearance;
- SE .... EER; SE .... EEL: asymmetrical square insert with 20° normal clearance, 75° cutting edge angle and 20° wiper edge normal clearance.

Inserts with wiper edges, without fixing hole are standardized only without chip breakers.

Table 17 gives the range of dimensions of these inserts.

### 4 Interchangeability

#### 4.1 Tolerances

Indexable hardmetal (carbide) inserts specified in this International Standard are provided in the following tolerance classes in accordance with ISO 1832:

a) inserts with  $0^{\circ}$  and  $11^{\circ}$  normal clearance (TP, SN and SP):

tolerance classes A, C and K, where class C is used mainly for coated inserts;

b) inserts with 20° normal clearance (TE and SE):

tolerance class C.