123 ✓

International Standard 6280

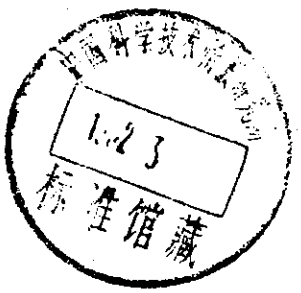
INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

普通止推轴承 — 厚壁多层轴承的底座 技术

Plain bearings — Requirements on backings for thick-walled multilayer bearings

Paliers lisses — Caractéristiques des supports pour coussinets multicouches épais

First edition — 1981-11-15



UDC 621.822.5 : 669.13/.14 : 669.35.6 **Ref. No. ISO 6280-1981 (E)**

Descriptors : bearings, plain bearings, bearing bushes, holders, bounded joints, steels, cast steel, cast iron, tin bronzes, chemical composition.

Price based on 1 page

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (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 set up 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 6280 was developed by Technical Committee ISO/TC 123, *Plain bearings*, and was circulated to the member bodies in January 1979.

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

Australia	India	South Africa, Rep. of
Bulgaria	Ireland	Spain
Chile	Italy	Sweden
Czechoslovakia	Netherlands	Turkey
Egypt, Arab Rep. of	New Zealand	USA
France	Poland	USSR
Germany, F.R.	Romania	

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

United Kingdom

Printed in Switzerland

Plain bearings — Requirements on backings for thick-walled multilayer bearings

1 Scope and field of application

This International Standard serves as a guide to obtain the optimum bond between backing and bearing metal for thick-walled multilayer plain bearings. This optimum bond depends on the chemical composition, the state of stress, the structural arrangement, and the machining of the bond surface of the backings.

2 Reference

ISO 1338, *Cast copper alloys — Composition and mechanical properties.*

3 Backing materials

Steel and cast steel, cast iron with lamellar and spheroidal graphite as well as cast copper alloys are used as backing materials.

3.1 Steel and cast steel

Before lining, the backing is heat-treated for normalizing and removal of internal stresses.

Maximum contents of elements for bonding :

C < 0,25 % (*m/m*)

Cr < 0,2 % (*m/m*)

Ni < 0,5 % (*m/m*)

The hydrogen contents of a backing having a thickness of 40 mm or more shall be not more than 1,7 mg/kg.

3.2 Cast iron

The microstructure should be ferritic or largely ferritic.

Maximum contents of elements for bonding :

Si < 2,5 % (*m/m*)

P < 1,2 % (*m/m*)

C < 3,35 % (*m/m*)

3.3 Cast copper alloys

Cast copper alloys in accordance with ISO 1338, for example Cu Sn10, Cu Pb5 Sn5 Zn5.

4 Machining of bond surface

The bond surface on the backing should have a surface roughness of

R_a = 4 to 8 µm

Final machining should be carried out without material cutting fluids unless degreasing methods are subsequently used prior to metallization.