

# INTERNATIONAL STANDARD

**ISO**  
**11455**

**ANSI Internat Doc Sec**

First edition  
1995-03-15

---

---

## **Raw optical glass — Determination of birefringence**

*Verre d'optique brut — Détermination de la biréfringence*



Reference number  
ISO 11455:1995(E)



**Documents**  
Document Sharing Hub

## 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11455 was prepared by Technical Committee ISO/TC 172, *Optics and optical instruments*, Subcommittee SC 3, *Optical materials and components*.

Annex A of this International Standard is for information only.

© ISO 1995

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization

Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

## Introduction

Raw optical glass in bulk and preshaped forms may have permanent stress caused by the manufacturing procedure or temporary stress caused by thermal or mechanical load. These stresses cause anisotropy of the refractive index which causes path differences of the light path in the given object (in centimetres) which are measurable by interference optics. The birefringence, in nanometres per centimetre, is valid for the glass piece when isothermal and not mechanically altered and is the integrated value for the resultant wavefront deformation caused by an anisotropy of the refractive index.