

საქართველოს სტანდარტი

სსკ: 19.100

არარღვევითი გამოცდა- ულტრაბგერითი გამოცდა - ზოგადი პრინციპები

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

საინფორმაციო მონაცემები

1 მიღებულია და დაშვებულია სამოქმედოდ: სსიპ-საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს გენერალური დირექტორის 20/04/2021 წლის № 21 განკარგულებით

2 მიღებულია „თავფურცლის“ თარგმნის მეთოდით: სტანდარტიზაციის საერთაშორისო ორგანიზაციის (ისო) სტანდარტი ისო 16810:2012 „არარღვევითი გამოცდა- ულტრაბგერითი გამოცდა - ზოგადი პრინციპები“

3 პირველად

4 რეგისტრირებულია: სსიპ-საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 20/04/2021 წლის №268-1.3-019808

წინამდებარე სტანდარტის ნებისმიერი ფორმით გავრცელება სააგენტოს ნებართვის გარეშე აკრძალულია

**Non-destructive testing — Ultrasonic
testing — General principles**

Essais non destructifs — Contrôle par ultrasons — Principes généraux





COPYRIGHT PROTECTED DOCUMENT

© ISO 2012

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 either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction.....	v
1 Scope	1
2 Normative references.....	1
3 Qualification and certification of personnel	2
4 Information required prior to examination.....	2
5 Principles of ultrasonic examination.....	3
5.1 General	3
5.2 Vibration mode and direction of sound propagation	3
5.3 Transmission technique	3
5.4 Pulse echo technique.....	3
6 Equipment	4
6.1 Ultrasonic instrument	4
6.2 Ultrasonic probes	4
6.2.1 Probe selection.....	4
6.2.2 Frequency and dimensions of transducer.....	4
6.2.3 Dead zone.....	4
6.2.4 Damping	5
6.2.5 Focusing probes.....	5
6.3 Coupling media.....	5
6.4 Calibration blocks	5
6.5 Reference blocks	5
6.6 Specific blocks	6
7 Settings.....	6
7.1 General settings	6
7.2 Range settings.....	6
7.3 Amplification.....	7
7.4 Pulse repetition frequency	7
8 Preparation for examination.....	7
8.1 Surface preparation.....	7
8.2 Identification and datum points	7
8.3 Application of transfer correction	7
9 Examination	8
9.1 Examination coverage	8
9.2 Overlap and scanning speed	8
9.2.1 Overlap	8
9.2.2 Scanning speed	8
9.3 Evaluation and recording levels	8
9.3.1 Pulse echo technique.....	8
9.3.2 Transmission technique	8
10 Characterization of imperfections	8
10.1 Pulse echo technique.....	8
10.2 Transmission techniques	9
11 Examination procedure.....	9
12 Examination report.....	10

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 16810 was prepared by Technical Committee ISO/TC 135, *Non-destructive testing*, Subcommittee SC 3, *Ultrasonic testing*.

საინფორმაციო ნაწილი. სრული ტექსტის სანახავად შეიძინეთ სტანდარტი.

Introduction

This International Standard is based on EN 583-1:1998, *Non-destructive testing — Ultrasonic examination — Part 1: General principles*.

The following International Standards are linked.

ISO 16810, *Non-destructive testing — Ultrasonic testing — General principles*

ISO 16811, *Non-destructive testing — Ultrasonic testing — Sensitivity and range setting*

ISO 16823, *Non-destructive testing — Ultrasonic testing — Transmission technique*

ISO 16826, *Non-destructive testing — Ultrasonic testing — Examination for discontinuities perpendicular to the surface*

ISO 16827, *Non-destructive testing — Ultrasonic testing — Characterization and sizing of discontinuities*

ISO 16828, *Non-destructive testing — Ultrasonic testing — Time-of-flight diffraction technique as a method for detection and sizing of discontinuities*