ISO 16823:2025-01 (E)

Non-destructive testing - Ultrasonic testing - Through-transmission technique

Contents

Page

Foreword ..... **iv**

Introduction ..... **v**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 NDT personnel **2**

5 Test equipment **2**

5.1 Instrument 2

5.2 Probes 2

5.2.1 General 2

5.2.2 Probe selection 2

5.2.3 Frequency and dimensions of transducer 2

5.2.4 Dead zone 3

5.2.5 Damping 3

5.2.6 Focusing probes 3

5.3 Coupling media 3

5.4 Standard blocks 3

5.5 Reference blocks 4

5.6 Specific test blocks 4

6 Principles of testing **4**

6.1 Basic techniques and setup 4

6.2 Capability of detection of discontinuities 6

6.3 Requirements for geometry and access 6

6.4 Effects of variations in coupling, angulation and alignment of probes 6

7 Test technique **7**

7.1 General 7

7.2 Sensitivity setting 7

7.3 Scanning 7

7.4 Evaluation of discontinuities 7

7.5 Determination of the attenuation coefficient 7

7.5.1 General 7

7.5.2 Comparative technique using a reference block 8

7.5.3 Technique using the test object only 9

Bibliography **12**