

Fibre-reinforced plastic composites — Non-destructive testing —

Part 2: Array and air-coupled ultrasonics

Composites plastiques renforcés de fibres — Contrôle non destructif —

Partie 2: Ultrasons à réseau et couplés à l'air

ISO/PRF 8203-2

<https://standards.iteh.ai/catalog/standards/iso/7fe53935-ed1a-4d91-9f9e-9a753c8522b5/iso-prf-8203-2>

PROOF

© ISO 2025

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: + 41 22 749 01 11
~~Email~~E-mail: copyright@iso.org
Website: ~~www.iso.org~~www.iso.org

Published in Switzerland

iTeh Standards (<https://standards.iteh.ai>) Document Preview

[ISO/PRF 8203-2](#)

<https://standards.iteh.ai/catalog/standards/iso/7fe53935-ed1a-4d91-9f9e-9a753c8522b5/iso-prf-8203-2>

Contents

Foreword..... v

Introduction..... vii

1 Scope..... 1

2 Normative references..... 1

3 Terms and definitions..... 1

4 Principles of operation 3

5 Test equipment..... 4

6 Reference blocks 7

7 Preparation of the test object..... 8

8 Test procedure..... 8

9 Configuring the test equipment..... 10

10 Testing 11

11 Data analysis..... 11

12 Qualification of test personnel..... 15

13 Test report..... 15

Annex A (normative) Test report for ultrasonic array testing..... 16

Annex B (normative) Test report sheet for air-coupled ultrasonic testing..... 18

Foreword..... iv

1 Scope..... 1

2 Normative references..... 1

3 Terms and definitions..... 2

4 Basic method..... 2

4.1 Principle of operation 2

4.2 Ultrasonic array inspection..... 2

4.3 Air-coupled ultrasonic testing 3

5 Test equipment..... 3

5.1 Selection of test equipment and test configuration..... 3

5.2 Ultrasonic array system..... 4

5.3 Ultrasonic system for air-coupled testing..... 4

5.4 Manipulator 5

5.5 Delay path..... 6

6 Reference blocks 6

7 Preparation of the test object..... 6

7.1 Cleaning..... 6

7.2 Visual inspection..... 7

7.3 Surface roughness 7

8 Test procedure..... 7

8.1 Determination of damping factor 7

8.2 Determination of the sound velocity in the test object material..... 7

8.3	Scanning.....	7
8.4	Recording.....	8
8.5	Signal processing	8
9	Configuring the test equipment.....	8
9.1	Setting the zero point	8
9.2	Alignment	8
9.4	Adjustment of sensitivity setting for air-coupled ultrasonic testing	9
9.5	Periodic sensitivity check	9
10	Testing	9
11	Data analysis.....	10
11.1	Image evaluation for ultrasonic array testing.....	10
11.2	Image evaluation for air-coupled ultrasonic testing	10
	Qualification of test	12
12	personnel	12
13	Test report.....	12
	Annex A (informative) Test report for ultrasonic array testing	13
	Annex B (informative) Test report sheet for air-coupled ultrasonic testing	16
	Bibliography	19

iTeh Standards
(<https://standards.itih.ai>)
Document Preview

ISO/PRF 8203-2

<https://standards.itih.ai/catalog/standards/iso/7fe53935-ed1a-4d91-9f9e-9a753c8522b5/iso-prf-8203-2>