

---

---

## Refractories — Test methods for thermal shock resistance

*Matériaux réfractaires — Méthodes d'essai de la résistance aux chocs  
thermiques*

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

[ISO 21736:2020](https://standards.iteh.ai/catalog/standards/iso/d1b7c772-5b69-4ec4-998e-375316fef663/iso-21736-2020)

<https://standards.iteh.ai/catalog/standards/iso/d1b7c772-5b69-4ec4-998e-375316fef663/iso-21736-2020>



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

[ISO 21736:2020](https://standards.iteh.ai/catalog/standards/iso/d1b7c772-5b69-4ec4-998e-375316fef663/iso-21736-2020)

<https://standards.iteh.ai/catalog/standards/iso/d1b7c772-5b69-4ec4-998e-375316fef663/iso-21736-2020>



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2020

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: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Method 1: water quenching</b> .....	<b>2</b>
4.1 General.....	2
4.2 Principle.....	2
4.3 Equipment.....	2
4.3.1 Experimental furnace.....	2
4.3.2 Cooling water channel.....	2
4.3.3 Test piece clamp.....	2
4.3.4 Drying oven.....	2
4.3.5 Grid, mesh size of 5 mm × 5 mm.....	2
4.4 Test pieces.....	2
4.4.1 Sampling.....	2
4.4.2 Shape, dimensions and preparation of test pieces.....	2
4.5 Test procedure.....	4
4.5.1 Heating.....	4
4.5.2 Cooling.....	5
4.6 Results expression.....	5
<b>5 Method 2: compressed air quenching</b> .....	<b>5</b>
5.1 General.....	5
5.2 Principle.....	6
5.3 Equipment.....	6
5.4 Test pieces.....	6
5.4.1 Sampling.....	6
5.4.2 Shape, dimensions and preparation of test pieces.....	6
5.5 Test procedure.....	7
5.5.1 Heating.....	7
5.5.2 Cooling.....	7
5.5.3 Determination.....	7
5.6 Results expression.....	7
<b>6 Method 3: air quenching</b> .....	<b>8</b>
6.1 General.....	8
6.2 Principle.....	8
6.3 Equipment.....	8
6.4 Test pieces.....	9
6.4.1 Sampling.....	9
6.4.2 Shape, dimensions and preparation of test pieces.....	9
6.5 Test procedures.....	9
6.5.1 Heating.....	9
6.5.2 Cooling.....	9
6.5.3 Results expression.....	9
<b>7 Test report</b> .....	<b>10</b>
<b>Annex A (informative) Precision data of thermal shock resistance tests</b> .....	<b>11</b>