
**Paints and varnishes — Determination
of stone-chip resistance of coatings —**

**Part 3:
Single-impact test with a free-flying
impact body**

*Peintures et vernis — Détermination de la résistance des revêtements
aux impacts de cailloux —*

Partie 3: Essai de choc simple par corps percutant en vol libre



Reference number
ISO 20567-3:2012(E)

AVA Documents
Document Sharing Hub
© ISO 2012



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 Principle	1
4 Apparatus and materials	2
5 Calibration	3
6 Sampling	3
7 Test panels	3
7.1 Substrate.....	3
7.2 Preparation and coating.....	3
7.3 Thickness of the coating.....	3
8 Procedure	3
8.1 Conditioning of the test panels.....	3
8.2 Test conditions.....	3
8.3 Number of test runs.....	3
8.4 Preparation for the test.....	3
8.5 Determination.....	4
9 Evaluation	4
10 Precision	4
10.1 General.....	4
10.2 Repeatability limit, r	4
10.3 Reproducibility limit, R	5
11 Test report	5
Annex A (informative) Calibration of the apparatus	6
Bibliography	8

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 20567-3 was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

ISO 20567 consists of the following parts, under the general title *Paints and varnishes — Determination of stone-chip resistance of coatings*:

- *Part 1: Multi-impact testing*
- *Part 2: Single-impact test with a guided impact body*
- *Part 3: Single-impact test with a free-flying impact body*

Introduction

In the automotive industry, multi-layer paint coatings are applied to car bodies for protection. Grit, road-metal and other materials can damage these coatings in such a way that individual layers come off or the whole coating delaminates from the substrate.

Stone chipping can be simulated by means of single- and/or multi-impact tests. Part 1 of this International Standard describes a multi-impact test, Parts 2 and 3 describe a single-impact test.