

First edition
2006-10-01

Plastics — Use of polyethylene reference specimens (PERS) for monitoring laboratory and outdoor weathering conditions

Plastiques — Utilisation d'éprouvettes de référence en polyéthylène pour l'évaluation des conditions de vieillissement climatique



Reference number
ISO/TR 19032:2006(E)

© ISO 2006

PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

© ISO 2006

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 Background information | 1 |
| 3 Material | 1 |
| 3.1 Preparation of PERS..... | 1 |
| 4 Procedure | 2 |
| 4.1 Method for measuring the carbonyl index of PERS..... | 2 |
| 4.2 Round Robin Test of laboratory light-source exposure devices with PERS | 3 |
| 4.2.1 Xenon-arc-lamp exposure..... | 3 |
| 4.2.2 Open-flame carbon-arc-lamp exposure..... | 3 |
| 4.2.3 Fluorescence lamp exposure | 4 |
| 4.3 Outdoor exposure test of PERS | 4 |
| 4.4 Consistency of laboratory light-source exposure devices | 5 |
| 5 Results and discussion..... | 6 |
| 5.1 Result of RRT of laboratory light-source exposure devices with PERS..... | 6 |
| 5.1.1 Xenon-arc-lamp exposure..... | 6 |
| 5.1.2 Open-flame carbon-arc-lamp exposure..... | 10 |
| 5.1.3 Fluorescent lamp exposure | 10 |
| 5.2 Characterizing the conditions of outdoor exposure test site | 11 |
| 5.3 Examples of correlation between outdoor exposure test and laboratory light-source exposure test using PERS | 12 |
| 5.4 Control limit of particular laboratory light-source exposure apparatus | 13 |
| 6 Conclusion | 14 |
| 6.1 Results of RRT | 14 |
| 6.2 Outdoor exposure of PERS | 15 |
| 6.3 Correlation between outdoor and xenon-arc-lamp exposure for PERS | 15 |
| 6.4 Consistency of laboratory light-source exposure devices | 15 |
| Bibliography | 16 |