



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS K 6259-1 : 2015

(JRMA/JSA)

**Rubber, vulcanized or
thermoplastic—Determination of
ozone resistance—Part 1: Static
and dynamic strain testing**

ICS 83.060

Reference number : JIS K 6259-1 : 2015 (E)

Date of Establishment: 2015-09-24

Date of Public Notice in Official Gazette: 2015-09-24

Investigated by: Japanese Industrial Standards Committee
Standards Board for ISO area
Technical Committee on Chemical Products and
Analytical Methods

JIS K 6259-1:2015, First English edition published in 2016-08

Translated and published by: Japanese Standards Association
Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2016

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 the publisher.

Printed in Japan

NH/AT

Contents

| | Page |
|---|------|
| Introduction..... | 1 |
| 1 Scope | 1 |
| 2 Normative references..... | 1 |
| 3 Terms and definitions | 2 |
| 4 Principle | 2 |
| 5 Apparatus | 4 |
| 6 Calibration of test apparatus | 8 |
| 7 Test pieces | 8 |
| 7.1 General | 8 |
| 7.2 Wide test piece | 9 |
| 7.3 Narrow test piece | 9 |
| 7.3A Preparation of the test pieces | 9 |
| 7.3B Measuring the thickness and width of the test pieces | 9 |
| 7.3C Making method of bench mark for measuring tensile strain | 9 |
| 8 Conditioning | 10 |
| 8.1 Conditioning in the unstrained state | 10 |
| 8.1A Standard laboratory temperature | 10 |
| 8.1B Storage of test specimens and test pieces | 10 |
| 8.1C Conditioning of test pieces | 10 |
| 8.2 Conditioning in the strained state (for static strain testing only) | 10 |
| 9 Test conditions | 10 |
| 9.1 Ozone concentration | 10 |
| 9.2 Temperature of test | 11 |
| 9.3 Relative humidity | 11 |
| 9.4 Maximum elongation | 11 |
| 10 Static strain testing | 11 |
| 10.1 General | 11 |
| 10.2 Choice of procedure | 12 |
| 11 Dynamic strain testing | 13 |
| 11.1 General | 13 |
| 11.2 Continuous dynamic exposure | 14 |
| 11.3 Intermittent dynamic exposure | 15 |
| 12 Expression of results | 16 |
| 12.1 Procedure A (Crack condition observation procedure) | 16 |

| | | |
|------------------------|--|----|
| 12.2 | Procedure B (Crack appearance time measuring procedure) | 16 |
| 12.3 | Procedure C (Threshold strain and limiting threshold strain measuring procedure)..... | 16 |
| 13 | Test report | 17 |
| Annex A (informative) | Ozone cracking—Explanatory notes | 19 |
| Annex B (normative) | Calibration schedule | 21 |
| Annex C (informative) | Ozone cracking—Rating scales | 23 |
| Annex JA (normative) | Estimate of the degree of cracking | 24 |
| Annex JB (informative) | Comparison table between JIS and corresponding International Standard | 26 |

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by The Japan Rubber Manufacturers Association (JRMA)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

This **JIS** document is protected by the Copyright Law.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

JIS K 6259 series consists of the following 2 parts under the general title “*Rubber, vulcanized or thermoplastic—Determination of ozone resistance*”:

Part 1: Static and dynamic strain testing

Part 2: Determination of the ozone concentration