



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS K 3850-4 : 2000
(ISO 10397 : 1993)

**Measuring method for airborne fibrous
particles — Part 4: Determination of
asbestos plant emissions — Method by
fibre count measurement**

ICS 13.040.40

Descriptors : air, quality, exhaust gases, asbestos, determination of content, particle
size measurement, coarse-grain material, flues

Reference number : JIS K 3850-4 : 2000 (E)

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law.

JIS K 3850 series consist of the following four parts with the title of *Measuring method for airborne fibrous particles*.

Part 1: *Optical microscopy method and scanning electron microscopy method*

Part 2: *Direct-transfer transmission electron microscopy method*

Part 3: *Indirect-transfer transmission electron microscopy method*

Part 4: *Stationary source emissions — Determination of asbestos plant emissions — Method by fibre count measurement*

Date of Establishment: 2000-02-20

Date of Public Notice in Official Gazette: 2000-02-21

Investigated by: Japanese Industrial Standards Committee

Divisional Council on Environment

JIS K 3850-4:2000, Second English edition published in 2005-09

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

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

© JSA 2005

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

Measuring method for airborne fibrous particles — Part 4: Determination of asbestos plant emissions — Method by fibre count measurement

Introduction This Japanese Industrial Standard has been prepared based on the first edition of ISO 10397 *Stationary source emissions—Determination of asbestos plant emissions—Method by fibre count measurement* published in 1993 without modifying the technical contents. Annex F (informative) refers safety precautions.

The portions with sidelines or underlines with dots are the matters not stated in the original International Standard.

1 Scope This Standard specifies a method, using a fibre count technique, for the assessment of fibre concentrations in flowing gas streams in ducts, chimneys or flues from industrial processes using asbestos.

This method may be used to determine fibre concentrations from a wide range of processes where it is known that “regulated” fibres are present in emissions. No attempt is made to identify asbestos fibre types separately from other fibres.

NOTES 1 If fibre identification is required, reference should be made to ISO 10312 (JIS K 3850-2).

2 This method may be used to check that dust collection equipment, used to trap or prevent asbestos fibres escaping into the atmosphere, is working properly and effectively.

The range of application of the method for concentrations of fibres in ducts is about 0.05 fibres/cm³ to 10 fibres/cm³ although this range may vary according to the sampled volume which in turn will depend on duct velocities and the sampling apparatus used.

2 Normative references The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. At the time of publication, the editions indicated were valid, and standards and amendments published thereafter are not applicable. The normative references without the indication of the year of coming into effect apply limiting only to the most recent edition (including amendments).

JIS K 3850-1 *Measuring method for airborne fibrous particles—Part 1 : Optical microscopy method and scanning electron microscopy method*

ISO 3966 : 1977 *Measurement of fluid flow in closed conduits—Velocity area method using Pitot static tubes*

ISO 8672 : 1993 *Air quality—Determination of the number concentration of airborne inorganic fibres by phase contrast optical microscopy—Membrane filter method*

ISO 9096 : 1992 *Stationary source emissions—Determination of concentration and mass flow rate of particulate material in gas-carrying ducts—Manual gravimetric method*