



JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

---

**JIS K 6828-1** : 2003  
(JEIA/JSA)

**Plastics—Polymer dispersions—  
Determination of non-volatile matter  
(residue) at specified temperatures**

---

ICS 83.080.01; 87.040

Reference number : JIS K 6828-1 : 2003 (E)

PROTECTED BY COPYRIGHT

Licensee: Hong Kong Polytechnic University/9976803100  
Not for Resale, 07/29/2014 20:27:33 MDT

 **Documents**  
Document Sharing Hub

85

## 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 of establishing a Japanese Industrial Standard from Japan Emulsion Industry Association (JEIA)/the Japanese Standards Association (JSA), with a draft of Industrial Standard based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

Consequently, **JIS K 6828** is withdrawn and replaced with **JIS K 6828-1**, **JIS K 6828-2** and **JIS K 6828-3**.

This Standard has been made based on **ISO 1625 : 1998** *Plastics—Polymer dispersions—Determination of non-volatile matter (residue) at specified temperatures* for the purposes of making it easier to compare this Standard with International Standard; to prepare Japanese Industrial Standard conforming with International Standard; and to propose a draft of an International Standard which is based on Japanese Industrial Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

**JIS K 6828** consists of the following parts with the general title *Plastics—Polymer dispersions*.

*Part 1 : Determination of non-volatile matter (residue) at specified temperatures*

*Part 2 : Determination of white point temperature and minimum film-forming temperature*

*Part 3 : Determination of sieve residue (gross particle and coagulum content)*

Date of Establishment: 2003-03-20

Date of Public Notice in Official Gazette: 2003-03-20

Investigated by: Japanese Industrial Standards Committee  
Standards Board

Technical Committee on Chemical Products

---

JIS K 6828-1 : 2003, First English edition published in 2003-11

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 2003

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

PROTECTED BY COPYRIGHT

Licensee: Hong Kong Polytechnic University/9976803100  
Not for Resale, 07/29/2014 20:27:33 MDT

## Contents

|                                                                                                      | Page |
|------------------------------------------------------------------------------------------------------|------|
| Introduction .....                                                                                   | 1    |
| 1 Scope .....                                                                                        | 1    |
| 2 Normative references .....                                                                         | 2    |
| 3 Definition .....                                                                                   | 2    |
| 4 Principle .....                                                                                    | 2    |
| 5 Apparatus .....                                                                                    | 2    |
| 5.1 Flat-bottomed dish .....                                                                         | 2    |
| 5.2 Air oven .....                                                                                   | 3    |
| 5.3 Analytical balance .....                                                                         | 3    |
| 5.4 Desiccator .....                                                                                 | 3    |
| 6 Sampling .....                                                                                     | 3    |
| 7 Procedure .....                                                                                    | 3    |
| 8 Expression of results .....                                                                        | 4    |
| 9 Precision .....                                                                                    | 4    |
| 10 Test report .....                                                                                 | 4    |
| Annex A (normative) Test conditions .....                                                            | 5    |
| Annex 1 (informative) Comparison table between JIS and corresponding<br>International Standard ..... | 6    |

## Plastics—Polymer dispersions— Determination of non-volatile matter (residue) at specified temperatures

**Introduction** This Japanese Industrial Standard has been prepared based on the second edition of **ISO 1625** *Plastics—Polymer dispersions—Determination of non-volatile matter (residue) at specified temperatures* published in 1998 with some modifications of the technical contents.

The portions underlined with dots in this Standard are not stated in the original International Standard. The modified contents and their explanations are shown in Annex 1 (informative).

**1 Scope** This Standard specifies a method for the determination of the non-volatile matter content of polymer dispersions.

The method is applicable to all polymer dispersions whose residue is chemically stable under the test conditions. The method is also applicable to formulated polymer dispersions containing fillers, pigments and other auxiliaries.

- Remarks 1 This method is suitable for synthetic rubber latices provided heating for a specific period of time is considered appropriate (**JIS K 6387-2** specifies heating until the loss in mass of a 2 g test portion following successive periods of heating is less than 0.5 mg).
- 2 The residue from unplasticized polymer dispersions and rubber latices consists essentially of the polymeric material and of small quantities of auxiliaries such as emulsifiers, protective colloids, stabilizers, solvents added as film-forming agents and — especially for rubber latex concentrate — preserving agents. For plasticized samples, the residue by definition normally includes the plasticizer.
- 3 In-house methods for the determination of non-volatile matter often include drying with infrared or microwave radiation. Standardization of such methods is not possible, since they are not generally applicable. Several polymer compositions tend to decompose during such treatment and therefore give incorrect results.
- 4 The International Standard corresponding to this Standard is as follows.

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21**.

ISO 1625 : 1998 *Plastics—Polymer dispersions—Determination of non-volatile matter (residue) at specified temperatures* (MOD)