

# JIS

JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

---

JIS D 2605 : 2005

(JAPIA/JSA)

**Automotive parts—Rubber cups for  
hydraulic braking cylinders using a  
non-petroleum base hydraulic brake fluid**

---

ICS 43.040.40 ; 83.140.50

Reference number : JIS D 2605 : 2005 (E)

PROTECTED BY COPYRIGHT

29 S

## Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Auto Parts Industries Association (JAPIA)/ Japanese Standards Association (JSA), with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently **JIS D 2605:1998** is replaced with this Standard.

This revision has been made based on **ISO 4928:1980** *Road vehicles—Elastomeric cups and seals for cylinders for hydraulic braking systems using a non-petroleum base hydraulic brake fluid (service temperature 120 degrees C max.)* and **ISO 6118:1980** *Road vehicles—Elastomeric cups and seals for hydraulic brake actuating cylinders using a non-petroleum base hydraulic brake fluid (service temperature 70 degrees C max.)* for the purpose 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.

Date of Establishment: 1964-10-01

Date of Revision: 2005-03-20

Date of Public Notice in Official Gazette: 2005-03-22

Investigated by: Japanese Industrial Standards Committee  
Standards Board  
Technical Committee on Road Vehicles

---

JIS D 2605 : 2005, Third English edition published in 2008-07

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 2008

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

## Contents

	Page
Introduction .....	1
1 Scope .....	1
2 Normative references .....	1
3 Classification .....	3
4 Quality .....	3
4.1 Appearance .....	3
4.2 Performance .....	3
5 Material properties .....	6
6 Test methods .....	7
6.1 Original state test (informative) .....	7
6.2 Aging test .....	7
6.3 Fluid resistance test .....	8
6.4 Precipitation test .....	11
6.5 Metal corrosion test .....	12
6.6 Low-temperature resistance test .....	16
6.7 Low-temperature leakage test .....	16
6.8 Stroking durability test .....	17
6.9 Storage corrosion test .....	22
7 Test methods for materials .....	23
7.1 Original state test .....	23
7.2 Aging test .....	24
7.3 Compression set test .....	25
7.4 Fluid resistance test .....	26
8 Storage .....	29
9 Marking .....	29
Annex (informative) Comparison table between JIS and corresponding International Standards .....	31

## Automotive parts—Rubber cups for hydraulic braking cylinders using a non-petroleum base hydraulic brake fluid

**Introduction** This Japanese Industrial Standard has been prepared based on the first editions of ISO 4928 *Road vehicles—Elastomeric cups and seals for cylinders for hydraulic braking systems using a non-petroleum base hydraulic brake fluid (service temperature 120 degrees C max.)* and ISO 6118 *Road vehicles—Elastomeric cups and seals for hydraulic brake actuating cylinders using a non-petroleum base hydraulic brake fluid (service temperature 70 degrees C max.)* published in 1980 with some modification of the technical contents and the items not specified in the corresponding International Standards are complementarily provided (addition of Class 3 in the classification, etc.) as a part of Japanese Industrial Standard.

The portions given sidelines or dotted underlines are the matters modified from the original International Standards.

A list of modifications with explanations is given in Annex 1 (informative).

**1 Scope** This Standard specifies moulded rubber cups and seals for master and wheel cylinders for automotive hydraulic brake systems using a non-petroleum-base brake fluid (hereafter referred to as “cup”).

Remarks : The International Standard corresponding to this Standard are follows:

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

ISO 4928 : 1980 *Road vehicles—Elastomeric cups and seals for cylinders for hydraulic braking systems using a non-petroleum base hydraulic brake fluid (service temperature 120 degrees C max.)* (MOD)

ISO 6118 : 1980 *Road vehicles—Elastomeric cups and seals for hydraulic brake actuating cylinders using a non-petroleum base hydraulic fluid (service temperature 70 degrees C max.)* (MOD)

**2 Normative references** The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 7502 *Micrometer callipers*

JIS D 2603 *Automotive parts—Hydraulic brake master cylinders for hydraulic brake systems using a non-petroleum base hydraulic brake fluid*