

# JIS

JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

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**JIS S 6054** : 2020

(JWIMA/JSA)

**Roller ball pens and refills**

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ICS 01.100.40 ; 97.180

Reference number : JIS S 6054 : 2020 (E)

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S 6054 : 2020

Date of Establishment: 1987-07-01

Date of Revision: 2020-12-21

Date of Public Notice in Official Gazette: 2020-12-21

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

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JIS S 6054 : 2020, First English edition published in 2021-10

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

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Printed in Japan

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## Foreword

This Japanese Industrial Standard has been 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 Writing Instruments Manufacturers Association (JWIMA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied *mutatis mutandis* pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS S 6054**:2006), which has been technically revised.

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# Roller ball pens and refills

## Introduction

This Japanese Industrial Standard has been prepared based on **ISO 14145-1** : 2017, Edition 3 and **ISO 14145-2** : 1998, Edition 1 with some modifications of the technical contents to reflect the actual usage of the products in Japan.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

## 1 Scope

This Standard specifies the requirements for roller ball pens and refills for general and documentary use (hereafter referred to as roller ball pens and refills, respectively).

**NOTE** The International Standards corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 14145-1 : 2017 *Roller ball pens and refills — Part 1 : General use*

ISO 14145-2 : 1998 *Roller ball pens and refills — Part 2 : Documentary use (DOC)* (overall evaluation : MOD)

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 21-1**.

## 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 K 0050 *General rules for chemical analysis*

JIS K 0116 *General rules for atomic emission spectrometry*

JIS K 0121 *General rules for atomic absorption spectrometry*

JIS K 6253-3 *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 3 : Durometer method*

JIS K 8085 *Ammonia solution (Reagent)*

JIS K 8101 *Ethanol (99.5) (Reagent)*

JIS K 8180 *Hydrochloric acid (Reagent)*

JIS L 0804 *Grey scale for assessing change in colour*

**NOTE** Corresponding International Standard : ISO 105-A02 *Textiles — Tests*