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**Test methods for colour fastness
to bleaching with hypochlorite**

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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 in accordance with the Industrial Standardization Law. Consequently **JIS L 0856 : 1995** is replaced with **JIS L 0856 : 2002**.

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

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Test methods for colour fastness to bleaching with hypochlorite

Introduction This Japanese Industrial Standard has been made based on **ISO 105-N01 Textiles—Tests for colour fastness—Part N01 : Colour fastness to bleaching : Hypochlorite** published in 1993 as the second edition with some modifications of the technical contents.

The portions given the sidelines or dotted underlines in this Standard are the modifications of the relevant parts in the original International Standard. A list of the modifications are given in the Annex 1 (informative) together with the reason.

In this revision, the titles of the standards applied as normative references has been changed along with their revision, the form of presentation has also been changed and the Annex 1 (informative) has been added.

1 Scope This Standard specifies the methods for colour fastness mainly of dyed textiles of natural fibre and regenerated cellulose fibre to bleaching with hypochlorite.

Remarks : 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 105-N01 : 1993 *Textiles—Tests for colour fastness—Part N01 : Colour fastness to bleaching : Hypochlorite* (MOD)

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

JIS K 3302 *Laundry bar soaps*

JIS K 8059 *Sodium hydrogensulfite*

JIS K 8230 *Hydrogen peroxide*

JIS L 0801 *General principles of test methods for colour fastness*

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

JIS Z 8802 *Methods for determination of pH of aqueous solutions*

3 Principle A test piece is treated with sodium hypochlorite solution or lithium hypochlorite solution following a specified procedure and washed with water, then treated with hydrogen peroxide solution or sodium hydrogen sulfite solution, washed with water again, dried, and then the colour fastness is assessed by comparing the change in colour of the specimen with the grey scale for assessing change in colour.

4 Classification The test is classified into two types, mild test and severe test as given in Table 1 and either one or both of them shall be carried out according to the purposes.

Table 1 Test of bleaching with hypochlorite—Classification and condition

Classification of test	Test solution		Temperature of solution °C	Liquor ratio	Time min
	Available chlorine g/L	pH			
Mild test	About 0.5	11 ± 0.2	20 ± 2	50:1	60
Severe test	About 2.0				

5 Apparatus and materials The following apparatus and materials are used:

- Beaker** of 300 ml in capacity.
- Constant temperature water bath** specified in 4 (1) of **JIS L 0801**.
- Dehydration device** specified in 4 (2) of **JIS L 0801**.
- Dryer** specified in 4 (3) of **JIS L 0801**.
- Grey scale for assessing change in colour** specified in **JIS L 0804**.
- Test solution** including the available chlorine given in Table 1 by preparing sodium hypochlorite solution or lithium hypochlorite solution.
- Hydrogen peroxide solution** 2.5 ml/L hydrogen peroxide (30 %)(¹).
Note (¹) Prepared using the hydrogen peroxide specified in **JIS K 8230**.
- Sodium hydrogen sulfite solution** 5 g/L sodium hydrogen sulfite(²).
Note (²) Prepared using the sodium hydrogen sulfite specified in **JIS K 8059**.
- Soapy water (5 g/L)** prepared using soap without additives as specified in **JIS K 3302**.

6 Preparation of test piece as specified in 5.1 of **JIS L 0801**.

7 Preparation of test solution

7.1 For mild test The preparation of the test solution for the mild test of a level of pH 11 ± 0.2 which involves approximately 0.5 g of available chlorine in 1 L of water is as follows:

- Determine available chlorine in the sodium hypochlorite solution(³) and prepare so as to include approximately 1.0 g of available chlorine in 1 L of it and make this the stock solution (α). This stock solution shall be prepared immediately before use.

Note (³) The determination of available chlorine shall be as follows: