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**Testing methods for quantitative analysis
of fibre mixtures — Part 5: Principal
component analysis method by
electrophoresis of animal fibre**

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Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Act.

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Testing methods for quantitative analysis of fibre mixtures

— Part 5: Principal component analysis method by electrophoresis of animal fibre

1 Scope

This Japanese Industrial Standard specifies the electrophoresis method for identification of animal hair fibres composed of a single animal species. While fibre identification methods are specified in **JIS L 1030-1**, the method specified in this Standard enables the identification of animal hairs in textile and fur products with a higher accuracy. This Standard is applied to the identification of samples whose animal species remain unknown (hereafter referred to as unknown samples) after identification of a single animal species in accordance with **JIS L 1030-1**.

Note that this test method cannot be used to differentiate between animal species which are identical ¹⁾ in mobility and intensity values of the electrophoresis patterns obtained by this Standard. Examples of such cases include combinations of llamas and alpacas, sables and martens, and coyotes and wolves.

Note ¹⁾ “Identical” means that the correlation coefficient, calculated from the mobility and intensity values of the electrophoresis patterns between two types of animal hair fibres, is 0.84 or higher.

2 Normative references

Part or all of the provisions of the following standards, 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 0557 *Water used for industrial water and wastewater analysis*

JIS K 0970 *Piston pipettes*

JIS K 1503 *Acetone*

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

JIS K 8180 *Hydrochloric acid (Reagent)*

JIS K 8291 *Glycine (Reagent)*

JIS K 8295 *Glycerol (Reagent)*

JIS K 8355 *Acetic acid (Reagent)*

JIS K 8844 *Bromophenol blue (Reagent)*

JIS K 9704 *2-Amino-2-hydroxymethyl-1,3-propanediol (Reagent)*

JIS L 0105 *General principles of physical testing methods for textiles*

JIS L 1030-1 *Testing methods for quantitative analysis of fibre mixtures — Part 1:*