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Contents

Page

Foreword

This Japanese Industrial Standard has been established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal for establishment of Japanese Industrial Standard submitted by Japan Optical Glass Manufacturers' Association (JOGMA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act.

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Test methods for adhesion of optical thin films on plastic substrate

1 Scope

This Japanese Industrial Standard specifies the test methods for adhesion of optical thin films formed on plastic substrate. This Standard is not applicable to the substrates made of non-rigid or semi-rigid plastics. Also, this Standard is not applicable to the optical thin film of the target, of which the physical thickness is not more than 100 nm or not less than 10 μm, because the evaluation result of adhesion of such very thin or thick film is sometimes incorrect.

2 Normative references

There are no normative references in this Standard.

3 Terms and definitions

For the purpose of this Standard, the following terms and definitions apply.

3.1

indenter

conical jig having a tip ground into a semi-sphere shape, which directly touches a test piece

3.2

test force

force applied to a test piece surface via an indenter

3.3

loading rate

increasing rate of test force per unit of time

3.4

scratch speed

relative movement amount between a test piece and an indenter per unit of time under the state in which an indenter is pushed onto a test piece

3.5

critical damage

state in which a film is damaged in the test area for the first time

3.6