

JIS

JAPANESE INDUSTRIAL STANDARD

**Determination of free acid in acid
anhydride-based hardeners for
epoxide resins**

JIS K 7239—1991

Translated and Published

by

Japanese Standards Association

In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

JAPANESE INDUSTRIAL STANDARD

J I S

Determination of free acid in acid anhydride-based
hardeners for epoxide resins K 7239-19911. Scope

This Japanese Industrial Standard specifies determination of trace free acid in acid anhydride-based hardeners for epoxide resins. However, this is not applicable to acid anhydride-based hardeners containing one or more carboxylic acid groups in a molecule.

Remarks 1. In this test method the principle that the free acid colorate the Rhodamine 6G base is applied, and it is the method to determine the trace free acid by measuring the absorbance of 510 nm.

The measuring range is 0.1 to 1.0 % in free acid and 2 to 10 % in repeating fluctuation coefficient.

2. Applicable Standards to this Standard are shown in the following:

JIS K 0068-Testing Methods for Water Content of Chemical Products

JIS K 0115-General Rules for Molecular Absorptiometric Analysis

JIS K 8680-Toluene

JIS K 8687-Sodium

JIS K 8900-2-Butanone

JIS K 9012-Trisodium Phosphate, 12-Water

JIS P 3801-Filter Paper (for Chemical Analysis)

JIS R 3503-Glass Apparatus for Chemical Analysis

JIS R 3505-Volumetric Glassware

JIS Z 8401-Rules for Rounding off of Numerical Values

2. Definitions

For the purposes of this Standard the following definitions apply.

- (1) acid anhydride-based hardener The acid anhydride having one or more acid anhydride groups in the molecule and capable of hardening the epoxide resin according thereto.
- (2) free acid The compound containing two or more carboxylic acid groups to be obtained by hydrolyzing the acid anhydride-based hardener in the molecule.
- (3) free acid content rate The numerical value of free acid contained in the sample indicated by mass percentage.