ICS 83.180
CCS G 38

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 33799-2017

Determination of the bond strength of adhesive in engineering-plastic joints

Issued on: May 31, 2017 **Implemented on: December 1, 2017**

Issued by: General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, Standardization Administration of the People's Republic of China

Table of Contents

Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the re-drafting method to modify ISO 15509..2001 "Adhesive for Adhesive Engineering Plastics Adhesive Strength."

This standard adds Chapter 3 to the structure as compared to ISO 15509..2001.

The technical differences between this standard and ISO 15509..2001 are as follows.

--- on the normative reference documents, this standard has made a technical differences in the adjustment to meet China's technical conditions, adjust the situation

The situation is reflected in Chapter 2, "Normative references", as follows.

* ISO 10657,.1992, by ISO /IEC 16997, equivalent to ISO 15509..2001, equivalent to international standards;

* Added reference to GB/T 2943;

* Added reference to GB/T 21526;

* The ISO 2950..2001 cited ISO 291..1997 is dated;

* ISO 13895..1996 referenced by ISO 15509..2001 was deleted.

This standard is proposed by the China Petroleum and Chemical Industry Association.

This standard is under the jurisdiction of the National Adhesive Standardization Technical Committee (SAC/TC185).

The drafting of this standard. Shanghai Rubber Products Research Institute Co., Ltd., Shanghai Bang Polymer Materials Co., Ltd., three friends (Tianjin) high score

Sub Technology Co., Ltd.

1 Scope

This standard specifies the test method for the bonding strength of adhesives for engineering plastics.

This standard applies to the design of a specific design of plastic and plastic docking, the shear tensile strength measurement.

2 normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article

Pieces. For undated references, the latest edition (including all modifications) applies to this document.

GB/T 2943 Adhesive Terminology

GB/T 16997 Adhesive representation of major failure types (GB/T 16997-1997, idtISO 10365..1992)

GB/T 21526 Structural adhesives - Guidelines for surface treatment of metals and plastics before bonding (GB/T 21526-2008, ISO 17212.

2004, IDT)

ISO 291 Standard for Plastics Adjustment and Testing (Plastics-Standardatmospheres forconditioning and

testing

3 terms and definitions

The terms and definitions defined in GB/T 2943 apply to this document.

4 principle

Taking a specially designed empty cylindrical plastic as a sample, use a suitable test machine to orient the axially symmetrical specimen in tension,

Or the combination of tensile/torsional load under the test, the determination of adhesive bonding plastic tensile strength.

Note 1. When the stress changes from the inner radius to the outer radius of about 15%, the shear stress is unevenly distributed. Thus, the calculated shear strength is an "average" value.

Note 2. When the deformation increases as the diameter increases, the origin of the stress distribution curve is the deformation of the adhesive layer. The coincidence of shear and tensile stresses is made

ISO 4587 "Adhesive Rigidity on Rigid Bonding Assemblies for Tensile Lap Shear Strength"

It can be ignored in the adhesive layer of the symmetrical sample. In contrast to the peak group observed in the lap shear sample, there is virtually no stress distribution curve in the stress distribution curve

Very large peaks, since the bond continues in the direction of displacement.

5.1.1 General

The adherend was prepared by injection molding as described in 5.1.2 to 5.1.5.

5.1.2 Mold

The use of the mold should be from the mold-type mold, limit each injection for a injection molding. The cavity should be carried out through a conical gate

Filling.

Note. Use of this type of mold to avoid the fused marks, fused marks will lead to cooling after the injection of symmetry problems or lead to the region's mechanical properties.