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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 39289-2020

**Determination of the bonding strength of adhesives, metals and
plastics**

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Foreword

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

This standard is prepared by using the redrafting method with reference to ISO 19095.2015 "Evaluation of Plastic Plastic Surface Adhesion Performance of Metal Fittings".

The degree of consistency with ISO 19095.2015 is not equivalent.

This standard was proposed by the China Petroleum and Chemical Industry Federation.

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

Drafting organizations of this standard. Shanghai Bangzhong Polymer Materials Co., Ltd., Suzhou Jubang New Material Technology Co., Ltd., Shanghai Bozhi Inspection

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1 Scope

This standard specifies the method for measuring the bonding strength of adhesives for bonding metals and plastics.

This standard applies to the determination of the bonding strength of adhesives for bonding metals and plastics.

2 Normative references

The following documents are indispensable for the application of this document. For dated

reference documents, only the dated version applies to this document.

For undated references, the latest version (including all amendments) applies to this document.

GB/T 2918 Standard environment for condition adjustment and testing of plastic samples

GB/T 2943 Adhesive Terms

GB/T 7122 Determination of peel strength of high-strength adhesives by floating roller method

GB/T 7124 Determination of the tensile shear strength of adhesives (rigid material versus rigid material)

GB/T 21526 Guidelines for the surface treatment of metal and plastics before bonding of structural adhesives

GB/T 33799 Determination of butt strength of adhesives for engineering plastics

GB/T 36877 Determination of impact peel strength of structural adhesives-Wedge method

3 Terms and definitions

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

4 Classification of bonding strength between metal and plastic

Characterizing the bonding strength of metal and plastic can be divided into.

- a) Butt strength of metal and plastic after bonding;
- b) Tensile shear strength after bonding between metal and plastic;
- c) Peel strength after bonding between metal and plastic;
- d) Impact peel strength after metal and plastic bonding;
- e) Sealing performance after metal and plastic bonding.

5.1 Butt strength after metal and plastic bonding

Measure according to the method specified in GB/T 33799.

5.2 Tensile shear strength after metal and plastic bonding

Measure according to the method specified in GB/T 7124.