

ICS 83.120
CCS Q 23



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

GB/T 28889-2012

**Test method for In-plane shear properties of composite
materials**

Issued on: November 5, 2012

Implemented on: June 1, 2013

**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

1 Scope

2 Normative references

3 Terms and Definitions

Foreword

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

This standard uses redrafted Law Amendment uses ASTM D7078/D7078M-05 "V-notched rail shear composite shear

Test methods. "

This standard ASTM D7078/D7078M-05 compared to more adjustments in the structure, listed in Appendix A of this standard and

ASTM D7078/reg number control list D7078M-05's.

The existence of standards and ASTM D7078/D7078M-05 compared to the technical differences between the terms of these differences have been involved in through the outside

Margin vertical single line blank position (l) have been marked, in Appendix B gives the corresponding list of technical differences and their causes.

The standard proposed by China Building Materials Federation.

The standard fiber-reinforced plastic by the National Standardization Technical Committee (SAC/TC39) centralized.

This standard was drafted. Shanghai FRP Research Institute Limited.

1 Scope

This standard specifies the fiber reinforced plastic plane shear properties of test equipment, and sample preparation, test conditions, test procedures and results

Calculation.

This standard applies to the determination symmetrical fiber reinforced plastic laminate shear strength, shear modulus and shear stress - strain curve.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein

Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 1446 Test methods for fiber reinforced plastic properties General

GB/T 3961 fiber reinforced plastics

3 Terms and Definitions

GB/T 3961 defined by the following terms and definitions apply to this document.

3.1

Residual strain shear strength offset shear strength

In residual strain tolerance value is set as a starting point to the secant modulus of elasticity is the slope of a straight line, and shear stress - strain curve at the intersection

Stress.

Note. residual strain shear strength of the material used to determine the stress - strain curve is approximately linear limit, referred to as τ_S (non-linear curve of this definition included both

No material has been found not exclude damage). In the absence of an appropriate basis to determine if the parameter value is set, usually 0.2% engineering strain as

Set residual strain tolerance value, the corresponding residual strain shear strength denoted $\tau_S(0.2)$. In comparing the residual strain shear strength of the material must be used

The same residual strain tolerance limits, see Figure 1.

3.2

Secant modulus of elasticity chord modulus of elasticity

Shear stress - strain curve, with a little strain as a starting point (Recommendation 0.15% ~ 0.25%), to take the appropriate strain increment [through

Often taking (0.4 +/- 0.02)%], stress increment it corresponds with the strain increment ratio is the secant modulus of elasticity, which is regarded as the initial elastic modulus

Modulus.

3.3

Ultimate shear strength ultimatetrength

The maximum shear stress value in the range of 5% shear strain.

chinastandards.org - PREVIEW