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

中华人民共和国国家标准

GB/T 2577-2005

Replace GB/T 2577-1989

**Test method for resin content of glass fiber
reinforced plastics**

玻璃纤维增强塑料树脂含量试验方法

(ISO 1172: 1996, Textile-glass-reinforced plastics—Prepregs, moulding compounds and laminates—Determination of the textile-glass and mineral-filler—Calcination methods, MOD)

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China**

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Foreword

This standard is prepared based on ISO 1172:1996 “Textile-glass-reinforced plastics - Prepregs, moulding compounds and laminates - Determination of the textile-glass and mineral-filler - Calcination methods”. Annex C describes the standard numbers in this standard and the corresponding standard numbers in ISO 1172:1996.

The distinctions between this standard and ISO 1172:1996 are concluded as follows:

- This standard specifies the dimensions of the specimen;
- This standard does not contain the contents concerning the separation of mineral fillers which are not dissolved in hydrochloric acid.

This standard supersedes GB/T 2577-1989 “Test method for resin content of glass fiber reinforced plastics”.

This standard compared with GB/T 2577-1989 has the following variations:

- Add the section of “principle” (see section 3);
- Add the method to convert the volume content of fiber (see annex A);
- Add the method to separate mineral filler (see annex B).

Annex A and B in this standard are normative; annex C is for information only.

This standard is proposed by China Building Material Federation.

This standard is under the jurisdiction of National Technical Committee on Fiber Reinforced Plastic of Standardization Administration of China.

This standard is drafted by Harbin Fiber Glass Research Institute.

Main drafters of this standard: GUO Shuqi, ZHENG Yan, HOU Diyang, SHI Jianjun, WANG Rongqiu and WANG Hui

This first edition of this standard was issued in 1981 and revised in 1989. This standard is the second revised edition.

Test method for resin content of glass fiber reinforced plastics

1 Scope

This standard specifies the specimens, apparatus, reagents, test procedure and test report concerning the determination of resin content in glass fiber reinforced plastics after calcination.

This standard is applicable to glass fiber reinforced plastics whose resin matrix can be fully combusted.

This standard is applicable to reinforced plastics containing mineral filler which is dissolved at low combustion temperature or not dissolved in hydrochloric acid.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative reference referred to applies.

GB/T 1446 Fiber-reinforced plastics composites – The generals for determination of properties

3 Method and principle

A test specimen is weighed and subsequently calcinated at a defined temperature. The specimen is then reweighed and the non-combustible matter content obtained by determining the difference in mass of a test specimen before and after calcination in one of the following ways:

- a) In the case of materials containing no fillers the glass content is calculated directly from the difference in mass (method A);
- b) In the case of materials containing both glass and filler, the glass and filler remaining after calcination are separated by dissolution of the filler in hydrochloric acid. The difference between the mass of the specimen before calcination and the mass of the dried specimen after reaction with acid is used to measure the glass content. The filler content is obtained by calculating the difference between the mass of the specimen after



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