

ICS 83.120

CCS Q 23



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

GB/T 31293-2025

Replacing GB/T 31293-2014

Vacuum resin infusion molding epoxy for wind blade

风电叶片用真空导入环氧树脂

Issued on: June 30, 2025

Implemented on: January 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

Foreword

1 Scope

2 Normative references

3 Terms and Definitions

3.1 A method for preparing a composite product by curing

3.2 epoxy resin system

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document replaces GB/T 31293-2014 "Vacuum-infused epoxy resin for wind turbine blades". Compared with GB/T 31293-2014, In addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) The classification method has been changed (see Chapter 4, Chapter 4 of the 2014 edition);
- b) The exothermic peak temperature requirement was changed, the gel time requirement was deleted, and the pot life requirement was added (see 5.2, 5.2 of the 2014 edition);
- c) Added requirements for casting density and impact toughness (see 5.3);
- d) Added the test method for appearance (see 6.1);
- e) The test method for exothermic peak temperature has been changed (see 6.2.6, 6.7 of the 2014 edition);
- f) Added the test method for pot life (see 6.2.7);
- g) The test method for gel time has been deleted (see 6.6 of the 2014 edition);
- h) Added the method for preparing casting specimens (see 6.3.1);
- i) Added the test method for casting density (see 6.3.2);
- j) The requirements for type inspection cycle have been changed (see 7.2, 7.2 of the 2014 edition);
- k) The batching rules have been changed (see 7.4, 7.4 of the 2014 edition);

l) The sampling plan and sampling method have been changed (see 7.5, 7.5 of the 2014 edition);

m) The storage period requirements have been changed (see 8.4.2, 8.4.2 of the 2014 edition).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed by China Building Materials Federation.

This document is under the jurisdiction of the National Technical Committee for Standardization of Fiber Reinforced Plastics (SAC/TC39).

This document was drafted by: Sichuan Dongshu New Materials Co., Ltd., Beijing Glass and Steel Institute Testing Center Co., Ltd., Beijing Glass Institute (Tengzhou) Composite Materials Co., Ltd.

Materials Co., Ltd., Zhejiang Wansheng Co., Ltd., Guangdong Mingyang New Energy Materials Technology Co., Ltd., Daosheng Tianhe Materials Technology (Shanghai) Co., Ltd.

Co., Ltd., Huibai New Materials Technology (Shanghai) Co., Ltd., Shanghai Dewei New Energy Materials Co., Ltd., Jiangsu Yangnong Jinhua Chemical Co., Ltd., Shandong Shangzheng New Materials Technology Co., Ltd., Guangzhou Polymer New Materials Technology Co., Ltd., Beijing Guohua New Materials Technology Co., Ltd.

Technology Research Institute Co., Ltd., Tangshan Yulong New Materials Technology Co., Ltd., Dongfang Electric Wind Power Co., Ltd., Goldwind Science & Technology Co., Ltd.

Co., Ltd., Envision Energy Co., Ltd., Sany Heavy Energy Co., Ltd., Yunda Energy Technology Group Co., Ltd., Sinoma Science & Technology Wind Power Blade Co., Ltd.

Co., Ltd., Sinoma Science & Technology (Jiuquan) Wind Power Blade Co., Ltd., and Zhuzhou Times New Materials Technology Co., Ltd.

The main drafters of this document are: Xiao Yi, Zhou Baineng, Yang Dexu, Yao Yalin, Wang Ping, Zeng Wei, Wang Yanli, Chen Cuiping, Tan Shuiping, Zhang Xiaocun, Yu Xiaowei, Jian Fangtian, Tan Jun, Xie Yong, Wang Jikang, Wang Yibo, Wu Shuangquan, Li Xiuhai, Yang Senlin, Hao Zhuang, Ma Hao, Guo Jinlei, Zhou Xiaoliang, Li Chengliang, Lu Jiaqi, Chen Huang, and Mou Shuxiang.

This document was first published in 2014 and this is the first revision.

1 Scope

This document specifies the classification and technical requirements of vacuum-infused epoxy resin for wind turbine blades, describes the test methods and inspection rules, and

specifies Marking, packaging, transportation and storage.

This document applies to the production and inspection of vacuum-infused epoxy resins for wind turbine blades.

2 Normative references

GB 190

GB/T 191

GB/T 601-2016

GB/T 1033.1-2008

GB/T 2035

GB/T 2567-2021

GB/T 3961

GB/T 4612

GB/T 6488

GB/T 6678

GB/T 6680-2003

GB/T 11547

GB 18191

GB/T 19466.2

GB/T 22314

GB/T 24148.9

3 Terms and Definitions

The terms and definitions defined in GB/T 2035 and GB/T 3961 and the following apply to this document.

3.1 A method for preparing a composite product by curing

In a mold consisting of a rigid half mold and a flexible membrane, the resin is injected into the preform through a preset pipeline using the pressure generated by the vacuum.

3.2 epoxy resin system

A liquid mixture of epoxy resin and curing agent in a formulated ratio.