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CCS Q 53



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

GB/T 48235-2026

**Carbon fiber reinforced composites - Determination of the
mode I interlaminar fracture toughness under high loading rate
- Hopkinson bar method**

碳纤维增强复合材料 高加载速率下I型层间断裂韧性的测定 霍普金森杆法

(English Translation)

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Foreword

GB/T 48235-2026 is a recommended national standard (GB/T) of the People's Republic of China, issued on 28 September 2026 by the State Administration for Market Regulation and the Standardization Administration of China, with effect from 1 April 2027.

It is under the responsibility of the Standardization Administration of China.

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1 Scope

Composite structures can see very fast loading in impacts and similar events, and this standard describes a way to determine mode I interlaminar fracture toughness of carbon fibre reinforced composites at a high loading rate using the Hopkinson bar method. It will mostly be used by materials testing laboratories, research institutes, aerospace and automotive composite engineers and manufacturers developing laminates that must resist delamination under dynamic loads.

Interlaminar fracture toughness describes how well layers resist separating, and testing at high rates complements the more familiar quasi-static measurements. The document was issued on 28 September 2026 and takes effect on 1 April 2027. It is a recommended national standard published under the Standardization Administration of China. Our records show no earlier edition that it replaces and no adoption of an international standard, so laboratories evaluating composite materials for the Chinese market may treat it as a new reference method.