ISO 18352:2009-08 (E)

Carbon-fibre-reinforced plastics - Determination of compression-after-impact properties at a specified impact-energy level

Contents

Page

Foreword iv

1 Scope 1

2 Normative references 1

3 Terms and definitions 2

4 Principle 3

5 Conditioning of specimens and test environment 4
5.1 Standard conditioning procedure for specimens 4
5.2 Environmental test chamber for impact and compression tests 4

6 Test apparatus 4
6.1 General 4
6.2 Impact facility 4
6.3 Support fixture for specimen 4
6.4 Non-destructive testing instrument 6
6.5 Compression-testing machine 6
6.6 Compression-loading fixture 6
6.7 Measuring apparatus 7
6.8 Strain gauges 8

7 Specimens 8
7.1 Dimensions 8
7.2 Specimen preparation 9
7.3 Number of specimens 10

8 Procedure 10
8.1 Specimen conditioning 10
8.2 Measurement of specimen dimensions 10
8.3 Impact test 10
8.4 Non-destructive testing (NDT) 11
8.5 Inspection of specimens 11
8.6 Compression test 11

9 Validation 13

10 Calculation of results 14
10.1 CAI strength 14
10.2 CAI modulus 15
10.3 Maximum CAI strain 15
10.4 Rounding the results 15
10.5 Standard deviation and coefficient of variation 15
11 Test report 16

Annex A (normative) Detailed drawings of the components of the compression-loading fixture 17

Bibliography 20