

ISO 20506:2005-10 (E)

Fine ceramics (advanced ceramics, advanced technical ceramics) - Determination of the in-plane shear strength of continuous-fibre-reinforced composites at ambient temperature by the Iosipescu test

Contents		Page
Foreword		iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols and designations	2
5	Principle	3
6	Interferences	4
6.1	Test environment	4
6.2	Preparation of test pieces	4
6.3	Failures outside gauge section	4
6.4	Clamping forces	4
6.5	Friction	4
6.6	Thin test pieces	4
7	Apparatus	4
7.1	Testing machines	4
7.2	Data acquisition	5
7.3	Dimension-measuring devices	5
7.4	Test fixture	5
8	Test piece	6
8.1	Test piece geometry	6
8.2	Test piece preparation	6
8.2.1	Customary practices	6
8.2.2	Standard procedures	7
8.2.3	Handling precautions	7
8.3	Number of test pieces	7
9	Precautionary statement	7
10	Test conditions	7
10.1	Test modes and rates	7
10.1.1	Displacement rate	7
10.1.2	Load rate	8
11	Procedure	8
11.1	Test piece dimensions	8
11.2	Preparations for testing	8
11.3	Conducting the test	8
11.3.1	Mount the test piece in the test fixture	8
11.3.2	Begin data acquisition	9
11.3.3	Initiate the action of the test machine	9
11.4	Completion of testing	9

11.5	Post test	11
12	Calculation of results	11
12.1	Shear strength	11
12.2	Statistics	11
13	Test report	12
Annex A (informative) Results of round-robin tests		13
Bibliography		15