

ISO 12106:2003-03 (E)

Metallic materials - Fatigue testing - Axial-strain-controlled method

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Symbols	2
4.1	Specimens	3
4.2	Fatigue testing	3
4.3	Expression of results	5
5	Apparatus	5
5.1	Test machine	5
5.2	Strain measurement	6
5.3	Heating device and temperature measurement [10, 14 to 16]	6
5.4	Instrumentation for test monitoring	8
5.5	Checking and verification	9
6	Specimens	9
6.1	Geometry	9
6.2	Preparation of specimens	15
7	Procedure	17
7.1	Laboratory environment	17
7.2	Test machine control	17
7.3	Mounting of the specimen	17
7.4	Cycle shape -- Strain rate or frequency of cycling	18
7.5	Start of test	18
7.6	Number of specimens	19
7.7	Data recording	19
7.8	Failure criteria	19
7.9	End of test	21
8	Expression of results	22
8.1	Data necessary	22
8.2	Basic data	22
8.3	Analysis of results	22
9	Test report	24
9.1	General	24
9.2	Purpose of the test	24
9.3	Material	24
9.4	Specimen	24
9.5	Test methods	24
9.6	Test conditions	25
9.7	Presentation of results	25
9.8	Values to be stored in a low-cycle fatigue database	27

Annex A (informative) Examples of alignment-checking methods	29
Annex B (informative) Examples of graphical presentation of results	30
Bibliography	34