

DIN EN ISO 7539-6:2024-09 (E)

Corrosion of metals and alloys - Stress corrosion testing - Part 6: Preparation and use of precracked specimens for tests under constant load or constant displacement (ISO 7539-6:2018, Corrected version 2018-11 + Amd 1:2024) (includes Amendment A1:2024)

Contents		Page
European foreword.....		3
▣ European foreword to Amendment 1 ▣.....		4
Foreword		5
▣ Foreword to Amendment 1 ▣.....		6
1 Scope.....		7
2 Normative references.....		7
3 Terms and definitions		7
4 Principle		10
5 Specimens		10
5.1 General.....		10
5.2 Specimen design		12
5.3 Stress intensity factor considerations.....		23
5.4 Specimen preparation.....		29
5.5 Specimen identification		31
6 Initiation and propagation of fatigue cracks.....		31
7 Procedure.....		33
7.1 General.....		33
7.2 Environmental considerations.....		33
7.3 Environmental chamber.....		33
7.4 Environmental control and monitoring.....		34
7.5 Determination of K_{ISCC} by crack arrest		35
7.6 Determination of K_{ISCC} by crack initiation.....		38
7.7 Measurement of crack velocity		40
8 Test report.....		40
Annex A (informative) Use of notched specimens for stress corrosion tests.....		42
A.1 General.....		42
A.2 Symbols.....		42
A.3 Principle		42
A.4 Specimens		43
A.4.1 General.....		43
A.4.2 Specimen design		43
A.4.3 Stress considerations.....		43
A.4.4 Specimen preparation.....		44
A.5 Procedure.....		44
A.6 Test report.....		44
Annex B (informative) Determination of crack growth velocity.....		45
Bibliography.....		46