

ISO 13823:2008-06 (E)

General principles on the design of structures for durability

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols	4
5 Application	4
6 Basic concepts for verifying durability	5
6.1 General	5
6.2 Structure environment	5
6.3 Transfer mechanisms	5
6.4 Environmental action	5
6.5 Action effects	6
6.6 Limit states	6
7 Durability requirements	7
7.1 Basic durability requirement	7
7.2 Formats for checking durability	8
8 Design life of a structure and its components, t_D	11
8.1 Structure	11
8.2 Components	11
8.3 Component service life related to the design life of the structure	11
8.4 Difficulty and cost of maintenance or replacement	11
8.5 Consequences of failure	11
8.6 Selection of target reliability	11
9 Predicted service life, t_{SP}	12
9.1 General	12
9.2 Prediction based on experience	13
9.3 Prediction based on modelling	13
9.4 Prediction based on testing	14
10 Strategies for durability design	14
Annex A (informative) Examples of the application of the limit-states method	15
Annex B (informative) Examples of influences (structure environment) and agents (environmental action)	26
Annex C (informative) Examples of transfer mechanisms	32
Annex D (informative) Environmental actions for structural materials and their control	34
Annex E (informative) Procedures for ensuring durability	37
Bibliography	39