

INTERNATIONAL  
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## General principles on reliability for structures

*Principes généraux de la fiabilité des constructions*



Reference number  
ISO 2394:1998(E)

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## Contents

Page

<b>1</b>	<b>Scope</b> .....	<b>1</b>
<b>2</b>	<b>Definitions</b> .....	<b>1</b>
<b>3</b>	<b>Symbols</b> .....	<b>5</b>
<b>4</b>	<b>Requirements and concepts</b> .....	<b>6</b>
	<b>4.1 Fundamental requirements</b> .....	<b>6</b>
	<b>4.2 Reliability differentiation of structures</b> .....	<b>7</b>
	<b>4.3 Structural design</b> .....	<b>8</b>
	<b>4.4 Compliance</b> .....	<b>9</b>
	<b>4.5 Durability and maintenance</b> .....	<b>10</b>
<b>5</b>	<b>Principles of limit states design</b> .....	<b>11</b>
	<b>5.1 Limit states</b> .....	<b>11</b>
	<b>5.2 Design</b> .....	<b>12</b>
<b>6</b>	<b>Basic variables</b> .....	<b>13</b>
	<b>6.1 General</b> .....	<b>13</b>
	<b>6.2 Actions</b> .....	<b>14</b>
	<b>6.3 Environmental influences</b> .....	<b>15</b>
	<b>6.4 Properties of materials</b> .....	<b>16</b>
	<b>6.5 Geometrical quantities</b> .....	<b>16</b>
<b>7</b>	<b>Models</b> .....	<b>16</b>
	<b>7.1 General</b> .....	<b>16</b>
	<b>7.2 Types of models</b> .....	<b>17</b>
	<b>7.3 Model uncertainties</b> .....	<b>20</b>
	<b>7.4 Design based on experimental models</b> .....	<b>21</b>

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<b>8</b>	<b>Principles of probability-based design .....</b>	<b>21</b>
	8.1 General.....	21
	8.2 Systems reliability versus element reliability .....	22
	8.3 Specified degrees of required reliability .....	23
	8.4 Calculation of failure probabilities.....	23
	8.5 Implementation of probability-based design .....	24
<b>9</b>	<b>Partial factors format .....</b>	<b>24</b>
	9.1 Design conditions and design values .....	24
	9.2 Representative values of actions.....	26
	9.3 Characteristic values of properties of materials including soils .....	26
	9.4 Characteristic values of geometrical quantities.....	27
	9.5 Load cases and load combinations.....	27
	9.6 Action effects and resistances.....	27
	9.7 Verification for fatigue.....	28
	9.8 Calibration .....	28
<b>10</b>	<b>Assessment of existing structures .....</b>	<b>28</b>
	10.1 Relevant cases .....	28
	10.2 Principles of assessment.....	28
	10.3 Basic variables.....	29
	10.4 Investigation.....	29
	10.5 Assessment in the case of damage.....	30
	<b>Annex A: Quality management and quality assurance.....</b>	<b>31</b>
	<b>Annex B: Examples of permanent, variable and accidental actions</b>	<b>35</b>
	<b>Annex C: Models for fatigue .....</b>	<b>37</b>
	<b>Annex D: Design based on experimental models.....</b>	<b>40</b>
	<b>Annex E: Principles of reliability-based design.....</b>	<b>50</b>
	<b>Annex F: Combination of actions and estimation of action values</b>	<b>62</b>
	<b>Annex G: Example of a method of combination of actions.....</b>	<b>71</b>
	<b>Annex H: Index of definitions .....</b>	<b>73</b>

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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 2394 was prepared by Technical Committee ISO/TC 98, *Bases for design of structures*, Subcommittee SC 2, *Reliability of structures*.

This second edition cancels and replaces the first edition (ISO 2394:1986), which has been technically revised.

Annexes A to F of this International Standard are for information only.

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## Introduction

This International Standard constitutes a common basis for defining design rules relevant to the construction and use of the wide majority of buildings and civil engineering works, whatever the nature or combination of the materials used. However, their application to each type of material (concrete, steel, timber, masonry, etc.) will require specific adaptation to ensure a degree of reliability which, as far as possible, is consistent with the objectives of the code drafting committees for each material.

This International Standard is intended to serve as a basis for those committees responsible for the task of preparing national standards or codes of practice in accordance with the technical and economic conditions in a particular country, and which take into account the nature, type and conditions of use of the structure and the properties of the materials during its design working life. It will also provide a common basis for other International Standards (e.g. ENV 1991-1 EC1) dealing with load-bearing structures. Thus it has a conceptual character and it is of a fairly general nature.

It is important to recognize that structural reliability is an overall concept comprising models for describing actions, design rules, reliability elements, structural response and resistance, workmanship, quality control procedures and national requirements, all of which are mutually dependent.

The modification of one factor in isolation could therefore disturb the balance of reliability inherent in the overall concept.

It is therefore important that the modification of any one factor should be accompanied by a study of the implications relating to the overall reliability concept.