ISO 20887:2020-01 (E)

Sustainability in buildings and civil engineering works - Design for disassembly and adaptability - Principles, requirements and guidance

Contents

Page

Foreword ..... **v**

Introduction ..... **vi**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Decision-making framework **7**
4.1 General 7
4.2 Developing the client brief 7
4.3 Design strategies 8
4.3.1 General considerations 8
4.3.2 Durability considerations 9
4.4 Levels and scope of analysis 9
4.4.1 General 9
4.4.2 Systems 10
4.4.3 Elements 10
4.4.4 Component or assembly 10
4.4.5 Subcomponent 10
4.4.6 Material 10

5 Principles of design for disassembly and adaptability **11**
5.1 General 11
5.2 Adaptability principles 11
5.2.1 General 11
5.2.2 Versatility 11
5.2.3 Convertibility 12
5.2.4 Expandability 13
5.3 Disassembly principles 13
5.3.1 General 13
5.3.2 Ease of access to components and services 14
5.3.3 Independence 14
5.3.4 Avoidance of unnecessary treatments and finishes 16
5.3.5 Supporting re-use (circular economy) business models 16
5.3.6 Simplicity 18
5.3.7 Standardization 18
5.3.8 Safety of disassembly 19

6 Documentation and information **20**
6.1 General 20
6.2 Design details 20
6.3 Material constituents and manufacturers 20
6.4 Connection detailing 20
6.5 Data digitisation 21
6.6 Information transfer and management 21

7 Continuing implementation of DfD/A **21**
7.1 General 21
7.2 Product and component suppliers 22
7.3 Construction 22
7.4 Handover/commissioning 22

7.5 Use stage 22
7.6 Refurbishment 22
7.7 End-of-life/decommissioning 23
7.8 Education and capacity building 23

Annex A (informative) **Feasibility assessment of design for disassembly options for elements or components/assemblies** **24**

Annex B (informative) **Developing end-of-life scenarios** **27**

Annex C (informative) **Measuring performance** **30**

Bibliography **34**