

Contents

Disclaimer	ii
Foreword	iii
Contents	v
J.1 Introduction	7
J.1.1 Scope	7
J.1.2 Principles of sustainable steelwork building construction	7
J.1.3 Requirements for supply chain members	8
J.1.4 Specific terminology	9
J.2 Guidance for sustainable design of structural steelwork	11
J.2.1 General	11
J.2.2 Life-cycle assessment	11
J.2.3 Minimising material quantities	12
J.2.4 Design for adaptability and deconstruction	13
J.2.5 Reuse of structural components	13
J.3 Specification for sustainable fabrication of structural steelwork	15
J.3.1 Provision of information	15
J.3.2 Sustainable specification using new steel material	16
J.3.2.1 Responsible sourcing	16
J.3.2.2 Traceability, labelling and marking	16
J.3.2.3 Environmental Product Declaration (EPD)	16
J.3.3 Sustainable specification using reclaimed steel material	17
J.3.3.1 Procurement	17
J.3.3.2 Assessment of existing paint coating systems	17
J.3.3.3 Assessment of existing hot dip galvanized systems	18
J.3.3.4 Restrictions on fabrication	19
J.3.4 Sustainable fabrication of steelwork	19
J.3.4.1 Fabrication waste management	19
J.3.4.2 Welding procedures	19
J.3.5 Sustainable specification for protective treatment systems (corrosion and fire)	20
J.3.5.1 Untreated steelwork	20
J.3.5.2 Paint systems	20
J.3.5.3 Intumescent systems	20
J.3.5.4 Hot-dip galvanizing	20
J.3.6 Quality management	21
J.3.6.1 Competence of Steelwork Contractor	21
J.3.6.2 Environmental management system	21
References	23