

DIN EN 13241:2016-12 (E)

Industrial, commercial, garage doors and gates - Product standard, performance characteristics (includes Amendment :2016)

Contents	Page
European foreword.....	4
Introduction	5
1 Ⓐ Scope Ⓐ	6
1.1 General.....	6
1.2 Exclusions	6
1.3 Specific applications	7
2 Normative references.....	7
3 Terms and definitions	8
4 Requirements.....	8
4.1 General.....	8
4.2 Mechanical aspects.....	9
4.2.1 General.....	9
4.2.2 Force for manual operation.....	9
4.2.3 Mechanical resistance	9
4.2.4 Mechanical durability.....	9
4.2.5 Geometry of glazing/glass components.....	9
4.2.6 Protection against cutting.....	10
4.2.7 Protection against tripping	10
4.2.8 Safe openings.....	10
4.2.9 Release of dangerous substances.....	10
4.3 Power operation.....	10
4.3.1 General.....	10
4.3.2 Protection against crushing, shearing and drawing-in	10
4.3.3 Operating forces	11
4.3.4 Electrical safety.....	11
4.3.5 Electromagnetic compatibility (EMC).....	11
4.3.6 Alternative requirements	12
4.3.7 Upgrading of manually operated doors	12
4.4 Additional requirements for specific performance characteristics.....	13
4.4.1 General.....	13
4.4.2 Water tightness.....	13
4.4.3 Resistance to wind load	13
4.4.4 Noise	14
4.4.5 Thermal resistance.....	14
4.4.6 Air permeability	14
4.4.7 Durability of the performance characteristics.....	14
4.5 Instructions for installation, operation and maintenance.....	14
5 Marking and labelling.....	14
6 Evaluation of conformity.....	15
6.1 General.....	15
6.2 Initial type test	15
6.3 Test on site.....	16
6.4 Production control.....	16
Annex A (informative) Form for designation and classification of performances	17

Annex B (normative) Procedure for the determination of values for thermal resistance	18
B.1 Introduction	18
B.2 Procedure	18
Annex C (informative) Safety factors to be considered in door design in respect of their resistance to wind load.....	20
Annex ZA (informative) Relationship of this European Standard with the Construction Products Directive.....	21
Annex ZB (informative) \square_{A1} Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC $\langle A1 \rangle$.....	26
Annex ZC (informative) \square_{A1} Relationship between this European Standard and the Essential Requirements of EU Directive 2004/108/EC $\langle A1 \rangle$.....	27
Bibliography	28