

ISO 11671:2024-09 (E)

Fibre reinforced plastics - Telescopic ladder - Requirements and test methods

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Technical requirement	4
4.1	Functional dimension	4
4.2	Total load	4
4.3	Materials	5
4.4	Protection	5
4.5	Surface finish	5
4.6	Hinges (turning points)	5
4.7	Opening restraints	6
4.8	Rung/steps	6
4.9	Ladder feet	6
4.10	Top of leaning ladders	6
4.11	Locking of the rung/step sections	6
5	Testing methods	6
5.1	Appearance check	6
5.2	Dimension check	6
5.3	Marking durability test	6
5.4	Mechanical performance test	7
5.4.1	General requirements	7
5.4.2	Drop test	7
5.4.3	Strength test of stiles	7
5.4.4	Bending test of stile	9
5.4.5	Lateral deflection test of the ladder	10
5.4.6	Bottom stile ends test	11
5.4.7	Vertical load on rung/steps	12
5.4.8	Torsion test of rung/steps	13
5.4.9	Pull out test of rung/step	14
5.4.10	Test of opening restraints and hinges of standing ladders	15
5.4.11	Base slip test for leaning ladders	15
5.4.12	Test of locking mechanism	17
5.4.13	Cyclic test of hinge joints	18
5.4.14	Feet pull test	19
5.4.15	Asymmetrical bending test	19
5.4.16	Durability test for standing ladders	21
5.4.17	Opening and closing cycle test	24
5.5	Aging test	24
5.5.1	Principle	24
5.5.2	Preparation of the samples	24
5.5.3	Procedure	24
6	Marking, user instruction, packaging, transport and storage	25
6.1	Marking	25

6.2	User instruction	25
6.3	Packaging	26
6.4	Transport	26
6.5	Storage	26
Annex A (informative) Inspection rules		27
Annex B (normative) Test sequence		28
Bibliography		29