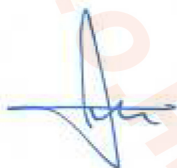


The following sample(s) was/were submitted and identified on behalf of the client as:

Sample Description : SINGLE STRAIGHT LADDER
 Style / Item No. :
 Test Performed : Selected test(s) as requested by applicant
 Sample Receiving Date : Mar 21, 2017
 Test Performing Date : Mar 21, 2017 to May 02, 2017
 Test Result(s) :

Test Requested	Result
EN 131-1:2015	Pass
EN 131-2:2010+A1:2012 excluding clause 6	Pass

Signed for and on behalf of
 Guangzhou Branch
 SGS-CSTC Ltd.



Arthur Mak
 Approved Signatory



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I . Test Conducted:

Test Conducted: Based on

EN 131: Part 1: 2015 Ladders – Terms, types, functional sizes

EN 131: Part 2:2010+A1:2012 Ladders – Requirements, testing, marking

Scope:

This standard specifies the general design features, requirements and test methods for portable ladders. It does not apply to step stools or ladders for specific professional use such as fire brigade ladders roof ladders and mobile ladders. It does not apply to ladders used for work on or near live electrical systems or installations.

In the working position all ladders are determined for a maximum static vertical load of 150kg.

Ladders are to be used by one person only per ascending leg of ladder.

Client claim maximum permissible load: 150 Kg

Ladder Type: Leaning Ladder

Number of tested sample: 1 Piece per Type; 4 Types

Test result: (details shown as following tables)

Table 1: Test Result of EN 131 Part 1: 2015

Clause	Test item	Result
4 Function sizes		
4.1	General	--
4.2	Leaning rung ladders	Pass
4.3	Standing rung ladders	NA
4.4	Combination ladders	NA
4.5	Leaning step ladders	NA
4.6	Standing step ladders	NA
4.7	Standing rung and step ladder	NA

Table 2: Test Result of EN 131 Part 2:2010+A1:2012

Clause	Test item	Result
4 Requirements		
4.1	General	--
4.2	Materials	Pass (Refer to Annex B)
4.3	Design	Pass
4.4	Surface finish	Pass
4.5	Hinges	NA



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4.6	Opening restraints	NA
Clause	Test item	Result
4.7	Rungs/steps/platforms	Pass
4.8	Platform	NA
4.9	Antiskid devices	Pass
4.10	Extending ladders and sectional ladders	NA
5 Testing		
5.1	General	--
5.2	Strength test of stiles	Pass
5.3	Bending test of the stiles	Pass
5.4	Lateral deflection test of the ladder	Pass
5.5	Bottom stile ends test	NA
5.6	Vertical load on rungs, steps and platforms	Pass
5.7	Torsion test of rungs and steps	Pass
5.8	Test of opening restraints and hinges of standing ladders	NA
5.9	Test for ladder rung/step hooks of extending ladders and combination ladders	NA
5.10	Kick-up test of the platform of standing ladders	NA
5.11	Feet pull test	Pass
5.12	Test on hand-/kneerails	NA
5.13	Maximum extension of ladder	NA
5.14	3-part combination ladder in A-position test	NA
5.15	Torsion on ladder length	Pass
5.16 Test methods for plastic ladders		
5.16.1	Thermoset plastics and composite materials	NA
5.16.2	Reinforced thermoplastics	NA
5.16.3	Dielectric test	NA
6 Marking and user instructions		
6	Marking and user instructions	NT



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Remark:

1. N/A = Not applicable.
2. N/T = Not tested as per client's request.
3. The tests from clause 5 of this standard are performed according to the test sequence as list in Annex A.

Annex A - Test Sequence

No. Seq.	Test	Leaning					Stand- ing	Combination			
		Rung			Step	Two pieces		Three pieces			
		One piece	Sec- tional	Ex- tended		Lea Pos		Stan Pos	Lea Pos	Stan Pos	
1	5.13 Maximum extension			X							
2	5.11 Feet pull	X	X	X	X	X	X		X		
3	5.10 Kick-up platform of standing ladder					X					
4	5.14 3-part combination in A position									X	
5	5.12.1 Top handrail					X					
6	5.12.2 Side Handrail	X		X	X	X	X		X		
7	5.4 Lateral deflection	X	X	X	X	X	X		X		
8	5.5 Bottom style end	X	X	X	X	X	X		X		
9	5.7 Torsion on rung, step	X	X	X	X	X		X		X	
10	5.15 Torsion on ladder length	X	X ^a	X ^a	X	X	X ^a		X ^a		
11	5.3 Bending	X	X	X	X	X	X		X		
12	5.6 Vertical load on rung, step and platform	X	X	X	X	X		X		X	
13	5.2 Strength	X	X	X	X	X	X		X		



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14	5.9 Hooks of extending/combination						X		X	
15	5.8 Opening restrains and hinge of standing ladder					X		X		X
a Test to be performed on each ascendable leg if they are different from each other.										

Annex B - Material Test (SGS Ref. No.: GZIN1703011007ML)

Tensile Test:

Test Method: EN ISO 6892-1:2016

Test item	Specimen type	Elongation after fracture, A_{50mm} (%)
Result-Leg	Rectangular specimen	9.5
Result-Beam	Rectangular specimen	21.5



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Sample Photo(s):



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Sample as received



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Sample as received



Sample as received

II. SGS Ref No.: GZIN1703011007ML

Tensile Test:

Test Method: EN ISO 6892-1:2016

Test item	Specimen type	Elongation after fracture, A_{50mm} (%)
Result-Leg	Rectangular specimen	9.5
Result-Beam	Rectangular specimen	21.5

Original Sample Photo:



End of Report



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