

Customer: VR Access Solutions Limited, 1 Swan Courtyard, Charles Edward Road, Birmingham, B26 1BU

Element Materials Technology (Sheffield) were asked by VR Access Solutions Limited to perform the analysis reported below:

Material Information

Test Date: 01/04/2016

 Description of Sample: 4.0M Galvanised Steel Ladder
 Material Specification: Not Given

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Introduction

Tested in accordance with: BS EN 131-2: 2010 + A1: 2012

The following report details tests applied to one Galvanised Steel Ladder (4.0m length) tested in accordance with relevant clauses of BSEN 131-2: 2010 + A1: 2012.

Results

Section 5.2 Strength Test of Stiles				
Pre Load	Test Load	Deflection Measurement taken after 1 minute (mm) $f_{max} = 0.001 \times l$	Pass / Fail	
500N	1100N	1mm	Pass	

Section 5.6.2 Vertical Load on Rung				
Pre Load	Test Load	Deflection Measurement taken after 1 minute (mm)	Deflection (%) Max 0.5%	Pass / Fail
200N	2600N	0mm	0.00%	Pass

Section 5.3 Bending Test of Stiles				
Pre Load	Test Load	Deflection Measurement taken after 1 minute (mm) $f_{max} = 5 \times l^2 \times 10^{-6}$	Pass / Fail	
100N	750N	29mm	Pass	

Section 5.7 Torsion Test on Rung				
Pre Load	Test Load	Deflection Measurement (°) Max 1°	Pass / Fail	
N/A	50Nm	Zero	Pass	

Section 5.4 Lateral Deflection Test of Ladder				
Pre Load	Test Load	Deflection Measurement taken after 1 minute (mm) $f_{max} = 0.005 \times l$	Pass / Fail	
100N	250N	4mm	Pass	

Section 5.11.1 Feet Pull Test				
Pre Load	Test Load	Separation Measurement (mm) Max 4mm	Pass / Fail	
N/A	150N	Zero	Pass	

Section 5.5 Bottom Stile Ends Test				
Pre Load	Test Load	Deflection Measurement taken after 1 minute (mm) $f_{max} = 2mm$	Pass / Fail	
N/A	1100N	0mm (Top Stile end)	Pass	
N/A	1100N	0mm (Bottom Stile end)	Pass	

Section 5.15 Torsion on Ladder Length				
Direction	Pre Load	Test Load	Deflection Measurement (°) Max 18°	Pass / Fail
Clockwise	65Nm	130Nm	1°	Pass
Anti clockwise	65Nm	130Nm	1°	Pass

Conclusion: From the results above the ladder has Passed the requirements of BS EN 131-2: 2010 + A1: 2012

Issue Date: 22 April 2016

Authorised Signatory

Signature:



Name:

Ben Bullen

Position:

Manager Mechanical Testing

NB: All tests marked with a * are not on our UKAS schedule of accreditation

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