

**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: 5.5M Galvanised Steel Ladder  
Material Specification: Not Given

## Introduction

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

The following report details tests applied to one Galvanised Steel Ladder (5.5m 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) fmax = 0.001 x l	Pass / Fail
500N	1100N	2mm	Pass

### Section 5.3 Bending Test of Stiles

Pre Load	Test Load	Deflection Measurement taken after 1 minute (mm) fmax = 0.043 x l - 90mm	Pass / Fail
100N	750N	73mm	Pass

### Section 5.4 Lateral Deflection Test of Ladder

Pre Load	Test Load	Deflection Measurement taken after 1 minute (mm) fmax = 0.005 x l	Pass / Fail
100N	250N	6mm	Pass

### Section 5.5 Bottom Stile Ends Test

Pre Load	Test Load	Deflection Measurement taken after 1 minute (mm) fmax = 2mm	Pass / Fail
N/A	1100N	0mm (Top Stile end)	Pass
N/A	1100N	0mm (Bottom Stile end)	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 5.7 Torsion Test on Rung

Pre Load	Test Load	Deflection Measurement (°) Max 1°	Pass / Fail
N/A	50Nm	Zero	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 5.15 Torsion on Ladder Length

Direction	Pre Load	Test Load	Deflection Measurement (°) Max 18°	Pass / Fail
Clockwise	65Nm	130Nm	2°	Pass
Anti clockwise	65Nm	130Nm	2°	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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