



Report of Discrete Ultra XL Extruded Rail Load / Deflection Testing

Client: Precision Wall Systems, Inc., dba Gridworx
Project: Discrete Ultra XL 571 Anchor
Project No.: 20-00157-900-02

Report No.: 14618-571D
Date of Service: 06/04/21

Construction Testing Sciences (CTS) was retained by Precision Wall Systems, Inc., dba Gridworx, to perform compression load / deflection testing on a discrete XL anchor, identified as Discrete Ultra XL Anchor, Part Number 571. This test program consisted of a steel frame with three vertical members at 16" o.c., simulating typical metal stud construction. The 570 anchor, which measured 34" long, was secured to the frame with 1/4" Ø Grade 8 bolts. The discrete XL dead load rail, Part Number 571, which measured 4" long, was interlocked into the "L" anchor. One pitch adjustment bolt was utilized with 1/4" engagement. A rigid steel loading bar, simulating stone, was secured to the dead load rail with 1/4" Grade 8 bolts, through which to apply a compression load. One dial gauge was installed underneath the anchor to measure deflection under load. Load was applied in 75 lbs. increments up to a minimum of 1,500 lbf. Deflection was recorded at each increment throughout the test. A total of five anchors were tested in this manner. Results of these tests are given on the following pages.

We trust the information provided is acceptable for your use. If you have any questions or require additional information please contact us.

Respectfully submitted,



Jack Gary
General Manager



Gridworx Extruded Rail Compression Loading

Date of Service: 06/04/21

Sample ID: Discrete Ultra XL 571 Anchor

Report Number: 14618-571D

Sample #: 1

Load (lbs)	Deflection (inches)
75	0.001
150	0.006
225	0.012
300	0.019
375	0.028
450	0.041
525	0.054
600	0.067
675	0.079
750	0.127
825	0.149
900	0.171
975	0.192
1050	0.215
1125	0.241
1200	0.274
1275	0.306
1350	0.357
1425	0.379
1500	0.436
1575	0.500
1650	0.564



Gridworx Extruded Rail Compression Loading

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Sample #: 2

Load (lbs)	Deflection (inches)
75	0.013
150	0.027
225	0.046
300	0.052
375	0.062
450	0.071
525	0.081
600	0.090
675	0.098
750	0.109
825	0.119
900	0.129
975	0.141
1050	0.154
1125	0.167
1200	0.182
1275	0.196
1350	0.222
1425	0.243
1500	0.269



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Sample #: 3

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Load (lbs)	Deflection (inches)
75	-0.009
150	-0.010
225	-0.007
300	-0.002
375	0.002
450	0.008
525	0.019
600	0.033
675	0.043
750	0.054
825	0.065
900	0.074
975	0.087
1050	0.100
1125	0.118
1200	0.135
1275	0.171
1350	0.183
1425	0.204
1500	0.226
1575	0.250



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Sample #: 4

Load (lbs)	Deflection (inches)
75	0.006
150	0.016
225	0.021
300	0.027
375	0.035
450	0.043
525	0.053
600	0.066
675	0.077
750	0.088
825	0.100
900	0.113
975	0.128
1050	0.142
1125	0.157
1200	0.171
1275	0.198
1350	0.213
1425	0.231
1500	0.260



Gridworx Extruded Rail Compression Loading

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Sample #: 5

Load (lbs)	Deflection (inches)
75	0.002
150	0.006
225	0.021
300	0.029
375	0.035
450	0.042
525	0.051
600	0.060
675	0.069
750	0.079
825	0.090
900	0.104
975	0.118
1050	0.131
1125	0.148
1200	0.160
1275	0.175
1350	0.201
1425	0.220
1500	0.246
1575	0.273