

Acrovyn® Handrail Assemblies Load Test Summary



March 8, 2017

Mr. Dustin Gardner
 Construction Specialties, Inc.
 Research and Development
 193 Miller Avenue
 Montgomery, Pennsylvania 17752

Dear Mr. Gardner:

Architectural Testing, Inc., an Intertek company ("Intertek-ATI"), was contracted by Construction Specialties, Inc. to witness handrail performance testing of various Acrovyn handrail. Testing was performed at Construction Specialties, Inc.'s facility in Montgomery, Pennsylvania.

The test specimens were evaluated in accordance with a client derived test method for load capacity.

Each test assembly consisted of one handrail measuring 46 in. long with two mounting brackets fastened 32 in. on center into the stud. The 46 in. long handrail specimen was mounted to a 48 in. wide by 16 in. high wall comprised of 20 gauge steels studs spaced 16 in. on center with 5/8 in. drywall covering one side. Each handrail assembly was attached to a test wall with the center lines of the brackets located 7 in. from each end of the handrail and 32 in. from each other. For each handrail tested a machined steel hook was attached to the handrail one inch from the end of the handrail. The machined hook was connected to a calibrated dynamometer and a double action pneumatically actuated cylinder with a steel chain. The handrail was then pulled away from the wall assembly at a speed of approximately 0.86 in/s. One sample of each handrail was tested. The peak load was recorded for each handrail.

Specimen Identification	Load at Failure (lbs)
HR-6CN	300
HRB-20N	360
AW-10C	360
HRB-10CN	400
HRBW-10CN	450
HRW-10C	500
HRWS-6CLB	400
P-RAAN	250
HRB-10CQLN	360
HRB-10CQLCMN	440
HRBW-10CQLN	380
HRBW-10CQLCMN	420

Reference should be made to Intertek-ATI Report No. **G7349.01-106-47** for complete test specimen description and results. This summary alone is not a complete report.

For INTERTEK-ATI:

Digitally Signed by: Dennis Fassnacht

Dennis Fassnacht Jr.
 Technician I
 Components / Materials Testing

Digitally Signed by: Joseph M. Brickner

Joseph M. Brickner
 Laboratory Supervisor
 Components / Materials Testing

DMF:jmb/kf
 cc: G7349.01-106-47