



Acrovyn®

Corner Guard Retainer Impact Testing



Two Interchange Place • York, PA 17402-9617 • Facsimile 717-764-4129 • Telephone 717-846-7700

SUMMARY OF IMPACT TEST REPORT

Rendered to:

CONSTRUCTION SPECIALTIES, INC.  
P.O. Box 380  
Muncy, Pennsylvania

Report No: ATI-7930-3  
Test Date: 08/15/90  
and: 08/16/90  
Report Date: 10/18/90

**TEST PURPOSE:** To test the impact resistance of Acrovyn retainers versus aluminum retainers for the SM-20 profile using a 92.5-pound bullet-shaped ram.

**TEST PROCEDURE:** The test specimens were evaluated in general accordance with ANSI/ASTM F476-76, Paragraph 18, "Impact Test". The steel ram was dropped from progressively higher drop heights to produce an impact on the surface of the specimens (measured in ft.lbs.). Each specimen was directly impacted at midspan between anchor locations.

**TEST SPECIMENS:**

- 1) SM-20 Aluminum Retainer with Gray Acrovyn Guard
- 2) SM-20 Acrovyn Retainer with Blue Acrovyn Guard

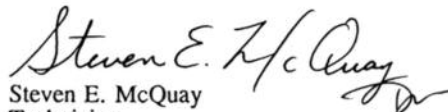
**TEST SPECIMEN MOUNTING:** The SM-20 corner guard retainers were mounted on a steel angle at 18" O.C. and staggered (as per installation detailing in literature). A neoprene bumper cushion was employed at the mounting locations between the retainer and the channel.

**TEST FINDINGS:**

1. The SM-20 aluminum retainer with gray Acrovyn guard resisted an impact of 38.5 ft.lbs. The guard did not crack until an impact of 92.5 ft.lbs. was imparted although stress whitening became evident at 46.2 ft.lbs. The same aluminum retainer was utilized, undamaged, for all three guard specimens.
2. The SM-20 Acrovyn retainer with blue Acrovyn guard resisted direct impacts of 92.5 ft.lbs. on the guard but showed a bulge in the retainer of specimen #1 at 61.7 ft.lbs. impact. The retainer did not actually crack until the 131.0 ft.lb. range was obtained.

**CONCLUSION:** The SM-20 Acrovyn guard resisted more impact energy in conjunction with the Acrovyn retainer than with the aluminum retainer.

ARCHITECTURAL TESTING, INC.

  
Steven E. McQuay  
Technician

Laboratories in: York, Pennsylvania • New Brighton, Minnesota • Washington, DC



To download details, specs & photos visit [www.c-sgroup.com](http://www.c-sgroup.com)  
For technical and design assistance call 800-233-8493.

©Copyright 2008 Construction Specialties, Inc.

Construction Specialties, Inc. reserves the right to make design changes or withdraw any design without notice.