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Date: August 13, 2002

Attn: Greg Hall

Report No.: 32351-R
P. O. No. 80838

REPORT

Lab Sample No.	Clips:
32351-1	White NC900 Face Clips, Delrin 100:16A, 16B, 16C
32351-2	Black NC900 Face Clips, Wellman annealed: 18A, 18B, 18C
32351-3	Black NC800 Face Clips.

PROCEDURE

Clips from the above samples were tested in triplicate for pull-out strength per IAC ENG-0002. Clips are tested in ambient conditions and after "accelerated weathering".

"Weathered" specimens were exposed to sunshine carbon-arc (ASTM G-153) accelerated weathering for 100 hours to simulate approximately 6 months outdoor exposure. These specimens were then exposed to $-5 \pm 3^\circ\text{F}$ for a period of 4-6 hours. Specimens were removed from the freezer, engaged in the appropriate mullion and face cover, and testing initiated within 30 seconds of removal from the freezer.

One clip was used per pull at rates of 1, 2, and 3 in/min. for each set of three specimens. Samples were prepared by twisting the base of the clip in the TW700 mullion followed by engaging the appropriate face cover (TW812 for NC800; TW912 for NC900) by snapping on with a strike of a glazing mallet perpendicular to and directly over the plastic clip.

RESULTS

Test rate: 1 in/min

Sample	Direct Pull Loads (lbf)	Direct Pull Loads (lbf)
	Non-Weathered	Weathered
32351-1a		
1	293.9	337.4
2	293.9	343.6
3	279.0	349.8
(Avg)	288.9	343.6
(SD)	(8.6)	(6.2)