STA Comparative Test Report

Date: March 8, 2023

Materials

Competitor Item # STA Item 1082C Competitor Item # STA Item 1080C Competitor Item #

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<u>Methods</u>

Method	Description			
PSTC-101	Peel adhesion to stainless steel,30 minute dwell, room temperature			
PSTC-107	Shear test to measure cohesive strength, 1 kg weight, ½" x ½" area			
STA TP-006	Box closure test on standard test boxes, 40°F for 24 hours			
STA TP-035	Cardboard fiber peel, immediate (observe for fiber removal)			

Test Results

Test	Item #	Item #	Item #	STA 1082	STA 1080
Total Thickness	1.67 mils	1.84 mils	1.95 mils	2.04 mils	1.80 mils
PSTC-101 (oz/in)	27	36	28	27	24
PSTC-107 (minutes)	29	24	41	>150	>150
STA-006 (% pass)	75%	50%	100%	100%	100%
STA TP-035 (pass/fail)	Pass	Pass	Pass	Pass	Pass
Observation	Very yellow, strong chemical smell	Very yellow, strong chemical smell	Mostly clear, strong chemical smell	Mostly clear, no odor	Mostly clear, no odor

Observations

- Competitor Item #, Competitor Item # and Competitor Item # all have a soft flowing adhesive, good for quick adhesion but with compromised holding power.
- Both STA products have good holding power as indicated by >150 minutes shear test performance
- The strong chemical odor observed on Competitor Item #, Competitor Item # and Competitor Item # sample rolls indicates unreacted monomer present in the acrylic polymer adhesive.
- The failure modes on the peel adhesion test (PSTC-101) and shear test (PSTC-107) for Competitor Item #, Competitor Item # and Competitor Item # were split transfer, indicating lack of cohesive strength.
- Failure modes for the STA products were adhesive (no transfer) for both products and both tests, indicating excellent cohesive strength.

