INTEGRITY TESTING LABORATORIES

CLIENT:

Hardware Resources 4319 Marlena Street Bossier City, LA 71111 Attention: Rachel Laird LABORATORY NO: F1711161-1A
DATE: December 6, 2017
CLIENT P.O. email, R. Laird
STANDARDS: ANSI/BHMA 156.9-15
ANSI/KCMA A161.1-12

SAMPLE: ONE CONCEALED ADJUSTABLE SELF CLOSE-SOFT CLOSE CABINET HINGE, P/N 1750.0535.25

ABSTRACT

This report serves to document the testing of the above sample to all applicable hinge test paragraphs of ANSI/BHMA A156.9-2015, American national standards for cabinet hardware, and ANSI/KCMA A161.1-2012, American national standards for kitchen and vanity cabinets. Test procedures include a hinge permanent set test, hinge operating life test, closing force test, self closing test, and an over opening test. We were requested to exceed the minimum required cycles, and complete 100,000 cycles total for both standards. The remainder of this report will show how the hinge samples submitted for testing exceeded all of the requirements needed for conformance to the two test standards.



HINGE P/N 1750.0535.25

Integrity Testing, 11250 Hwy 57, Counce TN 38326 Phone: (714) 321-0191

This report applies only to the sample or samples submitted for testing and is not necessarily indicative of the quality or condition of apparently identical or similar products. As a mutual protection to clients, the public, or these laboratories, this report is submitted and accepted for the exclusive use of the client to whom it is addressed, and upon that condition that it not be used, in whole or in part, in any advertising or publicity matter without prior written authorization from these laboratories.

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OBSERVATIONS AND RESULTS

ANSI/BHMA A156.9-15-GRADE 2

LABORATORY DETERMINATION	LABORATORY OBSERVATION	ANSI/BHMA A156.9-15 GRADE 2 REQUIREMENT	TEST RESULT
Hinge Permanent Set Test BHMA Section 4.2	Vertical Deflection = 0.052"	0.060" maximum vertical deflection after 75 lb. test load.	PASS
Hinge Operating Life Cycle Test	Vertical Deflection = 0.013" 100,000 cycles completed	0.030" maximum vertical deflection after 50,000 cycles with 12 lb. test load.	PASS
BHMA Section 4.3			
Hinge Self Closing Force Test	Closing Force = 12 oz.	4 oz. minimum closing force.	PASS
BHMA Section 4.4.2			
Hinge Self Closing Test	Door closed and remained closed from 10°.	Hinges shall close door from 10° after 50,000 cycles.	PASS
BHMA Section 4.4.3			
Hinge Over Opening Test BHMA Section 4.4.4	Door closed and remained closed from 10°.	Hinges shall close door from 10° after 17-lb. test force.	PASS

ANSI/KCMA A161.1-12

LABORATORY DETERMINATION	LABORATORY OBSERVATION	ANSI/KCMA A161.1-12 REQUIREMENT	TEST RESULT
Door Racking and Hinge Permanent Set Test Section 6.1	Vertical Deflection = 0.037"	0.065" maximum vertical deflection after 65 lb. test load.	PASS
Hinge Operating Life Cycle Test Section 6.2	Vertical Deflection = 0.009" 100,000 cycles completed	0.065" maximum vertical deflection after 25,000 cycles.	PASS

CONCLUSION

During the execution of the testing program, the model 1750.0535.25 hinge, performed well with no structural breakage or failure. Cycle testing completed was 2x the 50,000 BHMA requirement, and 4x the KCMA requirement. This sample submitted for testing exceeded all of the hinge test requirements and conforms to ANSI/BHMA 156.9-2015 for Grade 2 products, and conforms to ANSI/KCMA A161.1-12.

Respectfully submitted,

Edwin A. Leach, Laboratory Manager

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