

# INTEGRITY TESTING LABORATORIES



## CLIENT:

Hardware Resources  
4319 Marlena Street  
Bossier City, LA 71111  
Attention: Jacob Yates

LABORATORY NO: F2201261-1A  
DATE: March 3, 2022  
REPORT REVISION 1A DATE: June 6, 2024  
CLIENT P.O. email  
STANDARDS: ANSI/BHMA A156.9-20  
ANSI/KCMA A161.1-17

**SAMPLE:** ONE CONCEALED ADJUSTABLE SOFT CLOSE - SELF CLOSE  
CABINET HINGE, P/N 700.0535.25 and 700.0181.25

## ABSTRACT

This report serves to document the testing of the above sample to all applicable hinge test paragraphs of ANSI/BHMA A156.9-2020, American national standards for cabinet hardware, and ANSI/KCMA A161.1-2017, 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 700.0535.25 shown

Integrity Testing, 3959 S.W. 12<sup>th</sup> Court, Ft. Lauderdale, FL 33312 - 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. Samples were submitted as received, directly by the client along with all descriptors, names, models, or ID, no sampling procedures were performed by these laboratories. Client provided samples can affect reported results. No external service providers were utilized for the reported determinations. 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. Where statements of conformity are made in testing reports, the following decision rules are applied: **PASS** - Results within limits/specifications - **FAIL** - Results exceed limits/specifications. All laboratory procedures were performed in compliance with ISO/IEC 17025-2017.

**OBSERVATIONS AND RESULTS**

**ANSI/BHMA A156.9-20-GRADE 2**

<b>SAMPLES RECEIVED: 01/26/22 – SAMPLE CONDITION: NEW - SAMPLES TESTED: 01/26/22 - 02/18/22</b>			
<b>LABORATORY DETERMINATION</b>	<b>LABORATORY OBSERVATION</b>	<b>ANSI/BHMA A156.9-20 GRADE 2 REQUIREMENT</b>	<b>TEST RESULT</b>
Hinge Permanent Set Test BHMA Section 4.2	Vertical Deflection = 0.060"	0.060" maximum vertical deflection after 75 lb. test load.	<b>PASS</b>
Hinge Operating Life Cycle Test BHMA Section 4.3	Vertical Deflection = 0.025" <b>100,000 cycles completed</b>	0.030" maximum vertical deflection after 50,000 cycles with 12 lb. test load.	<b>PASS</b>
Hinge Self Closing Force Test BHMA Section 4.4.2	Closing Force = 16 oz.	4 oz. minimum closing force.	<b>PASS</b>
Hinge Self Closing Test BHMA Section 4.4.3	Door closed and remained closed from 10°.	Hinges shall close door from 10° after 50,000 cycles.	<b>PASS</b>
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.	<b>PASS</b>

**ANSI/KCMA A161.1-17**

<b>LABORATORY DETERMINATION</b>	<b>LABORATORY OBSERVATION</b>	<b>ANSI/KCMA A161.1-17 REQUIREMENT</b>	<b>TEST RESULT</b>
Door Racking and Hinge Permanent Set Test Section 6.1	Vertical Deflection = 0.050"	0.065" maximum vertical deflection after 65 lb. test load.	<b>PASS</b>
Hinge Operating Life Cycle Test Section 6.2	Vertical Deflection = 0.018" <b>100,000 cycles completed</b>	0.065" maximum vertical deflection after 25,000 cycles.	<b>PASS</b>

**CONCLUSION**

During the execution of the testing program, the model **700.0535.25 and 700.0181.25 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 156.9-2020 for Grade 2 products, **and conforms** to ANSI/KCMA A161.1-17.



Respectfully reviewed and authorized,

*[Signature]*  
Edwin A. Leach, Laboratory Manager  
INTEGRITY TESTING LABORATORIES