## **Testing & Certifications**

Hardware Resources is committed to providing the highest quality products to our customers, products that give a lifetime of consistent, reliable performance through:

- Extensive field testing with our products in the hands of real customers using them in the most challenging real world applications
- Ensuring that our products meet the required standards set forth by national institutions, such as ANSI and the Woodworking Institute through rigorous third party testing and certification

Throughout our catalog you will see references to various certifications including ANSI/BHMA and the Woodworking Institute (WI). These are some of the most common ratings and their meanings:

## For cabinet hinges:

ANSI/BHMA Hinge Grade	Door Weight	Permanent Set Test Load	Cycle Test Rating
Grade 1	$40 \pm 1/2 \text{ lb}$	160 lbf	100,000 cycles
Grade 2	12 ± 1/2 lb	75 lbf	50,000 cycles
Grade 3	6 ± 1/2 lb	75 lbf	25,000 cycles

## For drawer slides:

ANSI/BHMA Slide Grade	Static Load Weight	Cycle Test Rating
Grade 1	75 lb	50,000
Grade 2	50 lb	35,000
Grade 3	50 lb	25,000
1HD-100	100 lb	50,000



INTEGRIT	TORIES. Hardware Resource Laboratory No. F12 October 27, 2012 Page 2 of 2	F1209241-2A	
		VATIONS AND RESULTS HMA A156.9-03-GRADE 2	
LABORATORY DETERMINATION	LABORATORY OBSERVATION	ANSEBHMA A156.9-43 GRADE 2 REQUIREMENT	TEST RESULT
Hinge Permanent Set Test BHMA Section 4.1	Venical Deflection = 0.046*	0.060° maximum vertical deflection after 75 fb. test load.	PASS
Hinge Operating Life Cycle Test, BHMA Section 4.2	Hings cycled 100,000 complete cycles instead of the required 50,000 cycles Venical Deflection = 0.025°	0.003° maximum vertical deflection after \$3,000 cycles with \$2 fb. sed food.	PASS
Hinge Self Closing Force Test, BHMA Section 4.4.2	Closing Force = 8 az.	4 oz. minimum closing force.	PASS
Hinge Self Closing Test BUMA Section 6.4.3	Door closed and remained closed from 10°.	Hinges shall close door from 10° after 50,000 cycles.	PASS
Hinge Over Opening Test BUMA Section 4.4.4	Door closed and remained closed from 10°.	Hinges shall close door from H* after 17-th, test force.	PASS
Sult Spray Finish Test BIFMA Section 4,16.5	No substrate conssion or surface staining was observed	12 hours exposure. No base/substrate corrosion exceeding 1/16°, or more than one spot per square lach. No surface staining larger than 1/1°, or more than 5% of surface.	PASS
	43	(SI/KCMA A161,1-01	
LABORATORY DETERMINATION	LABORATORY OBSERVATION	ANSEKCMA A161.1-95 REQUIREMENT	TEST RESULT
Door Racking and Hingo Pormanent Set Test Section 6.1	Vertical Deflection = 0.033*	0.065* maximum vertical deflection after 65 fb. test load.	PASS
Hinge Operating Life Cycle Test, Section 6.2	Hinge cycled 100,000 complete cycles instead of the required 25,000 cycles Vertical Defection = 0.518*	0.065° maximum vertical deflection after 25,000 cycles.	PASS
	cc	ONCLUSION	
breakage or failure. T	his sample submitted for MA 156.9-2003 for Grade Respectful Bowin A INTEGRIT	model 900.0184.05 hinge performed well with model 900.0184.05 hinge performed well with recipient products, and conforms so ANSIKCMA A16 syndholistical,  Authorities of the performance	rements and

sample hinge certification

**Static Load Rating:** non-moving weight test with the specified weight over 24 hours.

**Dynamic Load Rating:** more robust test which includes a moving weight test with a specified weight over a set number of cycles.

## Woodwork Institute certification and what it means:

As a service to members of the Woodwork Institute and the architectural millwork industry in general, the WI certifies and acknowledges products that have been reviewed and confirmed to meet the WI's minimum requirements. These product requirements are established by the Architectural Woodwork Standards and can be found online at http://woodworkinstitute.com.



