

**APPENDIX D**  
**Test Specification for Final Master Moldmaker Certification Test**

Duty	Task Sequence	Task	# Test Items
<b>A</b>		<b>Advanced Planning and Review</b>	
	1	Redline a mold design	5
	2	Identify mold manufacturing cost issues	3
<b>B</b>		<b>Mold Design</b>	
	3	Check mold components for fit and function	6
	4	Design jigs and fixtures	4
<b>C</b>		<b>Plastic Injection Molding</b>	
	5	Describe the process of plastic injection molding	2
	6	Define functions of the plastic injection mold	3
	7	Describe injection molded part features	3
	8	Describe injection molded part defects	2
	9	Control mold temperature	2
	10	Describe parts and functions of the cavity/core assembly	3
	11	Describe the plastic delivery system	2
	12	Describe mold locating and spotting	2
	13	Describe mold ejection systems	3
<b>D</b>		<b>Alternative Molding Process</b>	
	14	Describe blow molding	1
	15	Describe extrusion molding processes	1
	16	Describe plastic/foam molding processes	1
	17	Describe rotational molding process	1
	18	Describe thermoform molding process	1
	19	Describe metal injection molding	1
	20	Define the die-casting process	1
<b>E</b>		<b>CAD/CAM and other Software</b>	
	21	Use CAD software to determine undocumented dimensions	6
	22	Use CAD software to troubleshoot	4
	23	Demonstrate concepts of programming using CAM software	3
	24	Demonstrate knowledge of communication software	2
	25	Use business production software	1
<b>F</b>		<b>Inspection and Measurement</b>	
	26	Request and verify part dimensions and features data	6
	27	Perform in-process checks	13
<b>G</b>		<b>Assembly, Fit and Finish</b>	
	28	Bench and polish steel	6
	29	Perform or request specialty finishing	3
	30	Spot together shut off areas	6
	31	Check and refine motion component assembly	7
	32	Verify operation of temperature management system	3
	33	Verify operation of hot runner manifold systems	5
	34	Verify customer-approved components	5
	35	Verify accuracy of build	6
<b>H</b>		<b>Project Management</b>	
	36	Perform a design review	6

	37	Use project management tools and/or software	8
<b>I</b>		<b>Mold Maintenance and Repair</b>	
	38	Perform general maintenance	8
	39	Perform flash repairs	15
<b>J</b>		<b>Troubleshoot Mold Problems</b>	
	40	Troubleshoot fit and function problems	9
	41	Troubleshoot hydraulic/pneumatic issues	6
	42	Troubleshoot electrical issues on molds	5
	43	Troubleshoot balance and fill issues	4
	44	Troubleshoot flow or cosmetic issues	7

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