

NSF/ANSI 61-2009: Drinking Water System Components Health Effects Annex G referencing CALIFORNIA ASSEMBLY BILL AB1953 Chapter 853-2006

Ice Makers (Models: 1.5IM, 2.5IM, and 3.0IM)

Project No. G100308582

February 18, 2011

Prepared for:
Northland Corporation dba AGA Marvel
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TEST REPORT

Intertek Testing Services NA, Inc US Route 11 Industrial Park Cortland, NY

3933 US Route 11

Cortland, NY 13045

PROJECT NO.: G100308582 DATE: February 18, 2011

REPORT NO. 100308582COL-001

RENDERED TO:

Northland Corporation dba AGA Marvel 1260 E Van Denise St P.O. Box 400 Greenville, MI 48838-0400

STANDARD REFERENCED AND TEST METHOD:

NSF/ANSI 61-2009: Drinking Water System Components Health Effects Annex G referencing California Assembly Bill AB 1953, Chapter 853-2006.

AUTHORIZATION:

The test was authorized by Mr. Mike Korpal; A representative from Northland Corporation dba AGA Marvel

SPECIMEN DESCRIPTION:

The samples submitted by the client were ice makers (Models: 1.5IM, 2.5IM, and 3.0IM). The materials in question are listed on the following pages.

GENERAL DESCRIPTION

The test evaluation that was performed at the biochemical lab in Columbus, Ohio was NSF/ANSI 61-2009: Drinking Water System Components Health Effects Annex G referencing California Assembly Bill AB 1953, Chapter 853-2006. The RoHS evaluation was performed by Intertek-CMS located at 670 Sentry Parkway, Blue Bell, PA 14922. The ice makers were tested for the amount of lead that is leached out into the water contact areas during testing. One sample of each material was received in good condition on January 10, 2011 and given the identification number of COL1101101648-001. The samples are currently in production.

TEST DESCRIPTION

The samples were then cleared of all water and sent to the Intertek-CMS office in Blue Bell, PA for RoHS testing on all surfaces that will come in contact with water

All components that come in contact with water were tested for their lead content (as well as other toxic heavy metals) using an XRF unit

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Calculation of contributing lead- The percentage of lead content within each component that comes into contact with water shall be multiplied by the percent of the total wetted surface of the entire pipe and pipe fitting, plumbing fitting, or fixture represented in each component containing lead. These percentages shall be added and the sum shall constitute the weighted average lead content of the pipe and pipe fitting, plumbing fitting, or fixture

CALIBRATED EQUIPMENT:

Calibrated	Identification	Next Calibration Due		
Equipment	Number	Date		
XRF	7336	CBU*		
Micrometer	E234	03/15/11		

*CBU-Calibrated Before Each Use

RESULTS:

Tables of the Results can be found in Annex A of the report.

<u>CONCLUSION:</u> This report documents the performance of the ice makers submitted by Northland Corporation dba AGA Marvel. The test sample evaluations were conducted at the Intertek biochemical laboratory located in Columbus, OH between January 27, 2011 and February 18, 2011. The ice makers (Models: 1.5IM, 2.5IM, and 3.0IM) do comply with the requirements of NSF/ANSI 61-2009: Drinking Water System Components Health Effects Annex G referencing California Assembly Bill AB 1953, Chapter 853-2006.

Test Performed by:

Shannon Meier Project Engineer Columbus Office Report Approved by:

Ramzi Amawi Operations Manager Columbus Office REPORT NO.: 100309582COL-001 DATE: February 18, 2011

ANNEX A

Model: 1.5IM and 2.5IM

Component	Part No.	Supplier	Number of Components	Wetted Surface	Percent of Total	Maximum Lead	Contributing Lead Content		
			Components	Area	Wetted	Content	(%)		
				(mm ²)	Surface	(%)	(70)		
				(111111)	Area	(70)			
					(%)				
Evap-Flat	41002541-	Shanghai	1	66990.20	14.16	0	0.000		
(White)	002	Xindong							
Water Fill	41003678	Pioneer Plastics	1	8586.40	1.81	0	0.000		
Tube									
Water Line-	41002006	Crescent	1	18241.30	3.86	0	0.000		
0.25		Plastics							
Diameter									
Ice Maker-	1220015C	Whirlpool Corp	1	85693.40	18.11	0	0.000		
TW626648									
Shut off Arm	1220025B	Dudek & Bock	1	574.00	0.12	0	0.000		
Ice Bucket-	41002909	AGA-Marvel	1	282696.20	59.75	0	0.000		
15IM									
Fitting-Water	41005780	NEO Products	1	247.70	0.05	0	0.000		
Line-Washer									
Fitting-Water	41005780	NEO Products	1	372.20	0.08	0.11	0.0001		
Line 90°									
Adapter									
Fitting-Water	41005780	NEO Products	1	126.50	0.03	2.62	0.0008		
Line-Sleeve									
Water Valve,	41005866	Horton Co	1	8320.00	1.76	0	0.000		
30IM Parts									
Water	41005866	Horton Co	1	1266.40	0.27	0	0.000		
Valave,									
30IM Guide									
Total Wett	Total Wetted Surface Area: 473114.30 mm ²				Total Contributing Lead: 0.0009				

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Model: 3.0IM

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Component	Part No.	Supplier	Number of	Wetted	Percent	Maximum	Contributing
			Components	Surface	of Total	Lead	Lead
				Area	Wetted	Content	Content
				(mm^2)	Surface	(%)	(%)
					Area		
*** 155.11	11005551	**************************************		1,7201.20	(%)	^	2 2222
Vinyl Tubing	41005654	ILEPA Industrial	1	15201.30	1.50	0	0.0000
Liner	41012007	Jer-Den Plastics	1	351605.70	34.79	0	0.0000
Fitting-Water	41005780	NEO Products	1	247.70	0.02	0	0.0000
Line-Washer	41005700	NEO P. 1	1	272.20	0.04	0.11	0.0000
Fitting-Water Line 90°	41005780	NEO Products	1	372.20	0.04	0.11	0.0000
Adapter	41005780	NEO Products	1	126.50	0.01	2.62	0.0003
Fitting-Water	41005/80	NEO Products	1	126.50	0.01	2.62	0.0003
Line-Sleeve Poly Tubing-	41011797	McMaster-Carr	1	18241.30	1.80	0	0.0000
	41011/9/	McMaster-Carr	1	18241.30	1.80	0	0.0000
LD Distributor	41005515	T1- W I1	1	14748.40	1.46	0	0.0000
Tube	41005515	Tech-Way Ind	1	14748.40	1.46	0	0.0000
Distributer End	41005705	Marian Incorp	2	246.50	0.05	0	0.0000
	41005703	Tai Sing Pro (HK)	1	50472.80	4.99	0	0.0000
Evap Assy 30IM	41005/15	Tai Sing Pro (HK)	1	50472.80	4.99	0	0.0000
Reservoir,	41005345	Jer-Den Plastics	1	161796.50	16.00	0	0.0000
,	41005345	Jer-Den Plastics	1	101/90.50	16.00	0	0.0000
30IM	41005635	Micro Plastics	1	230.20	0.02	0	0.0000
Spacer-White Drain Valve-	41005635	Horton Co	1	7709.00	0.02	0	0.0000
	41005550	Horton Co	1	7709.00	0.76	0	0.0000
30IM Parts Drain Valve-	41005530	Horton Co	1	2810.30	0.28	0	0.0000
30IM Guide	41003330	Horion Co	1	2610.30	0.28	0	0.0000
Circulation	41005537	Morrill Motors	1	148515.10	14.69	0	0.0000
Pump	41003337	Wollin Wotors	1	146313.10	14.09	U	0.0000
Drain Plug-	41005859	Polymer Equip	1	595.50	0.06	0	0.0000
Reservoir	41003839	Polymer Equip	1	393.30	0.00	0	0.0000
Ice Deflector	41005502	Ryerson	1	63794.10	6.31	0	0.0000
Ice Scoop-	41011999	Guangzhou Dashi	1	64419.20	6.37	0	0.0000
Plastic	41011999	Guangzhoù Dasin	1	04419.20	0.57	U	0.0000
Escutheon	41012161	Ryerson	1	54970.90	5.44	0	0.0000
Water Line-	41002006	Crescent Plastics	1	16883.80	1.67	0	0.0000
0.25 Diameter	71002000	Croscont i mones	1	10003.00	1.07		0.0000
Water Valve-	41005866	Horton Co	1	8320.00	0.82	0	0.0000
30IM Parts	.1002000	11011011 00	1	0020.00	0.02		0.0000
Water Valve-	41005866	Horton Co	1	1266.40	0.13	0	0.0000
30IM Guide			1				
Tubing Tee	41005702	US Plastics	1	3089.70	0.31	0	0.0000
Fitting							
Flow Restrictor	41006149	Richmond Ind Supp	1	401.30	0.04	0	0.0000
Standoff-	41012165	Ryerson	1	4770.30	0.47	0	0.0000
Circulation		,					
Grid-Cutter	42412615	Tai Sing Pro (HK)	1	19878.70	1.97	0	0.0000
Assy		6 1 (323)				-	
	etted Surface Area:	1010960 00 mm ²	•	Total Co	ntributing L	and: 0.0003	

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