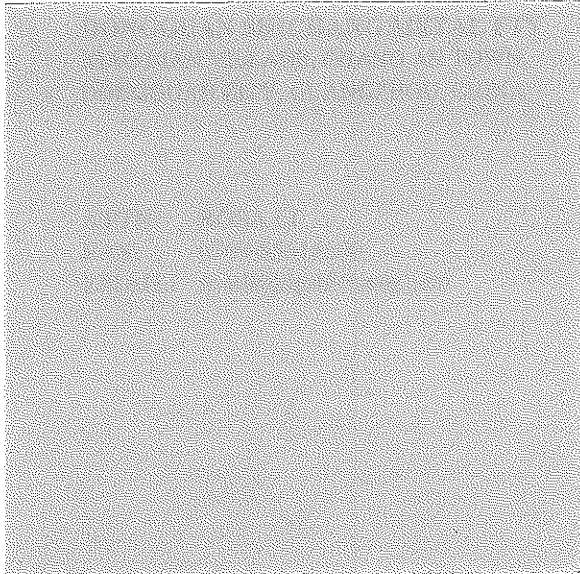




**BUREAU  
VERITAS**

# TEST REPORT



LAB LOCATION: SHENZHEN  
 LAB NUMBER: (5506) 159-0413  
 CLIENT NO.: /  
 DEPARTMENT: /  
 DATE IN: JUN 08, 2006  
 DATE OUT: JUN 19, 2006  
 MOD. LOG IN: /  
 WORKING DAYS: 8  
 ADDENDUM DATE: /  
 PAGE: 1 OF 2

OVERALL RATING	
PASS	_____ X _____
CORRECTIVE ACTION REQUIRED	_____
FAIL	_____

**TESTING FOR**  
 Desk (BIFMA X5.5-1998)  
 MC-3090.3 -US

DEVELOPMENT  PRODUCTION  CUSTOMER COMPLAINT  OTHER

<b>Sample Description:</b>	BLOW MOLD FOLDING TABLE		
<b>Final Packaging:</b>	Yes (submitted for review) <input type="checkbox"/>	No (not submitted for review) <input checked="" type="checkbox"/>	
<b>Manufacturer:</b>			
<b>Country of Origin:</b>	CHINA	<b>Style:</b>	BT3072
<b>Color:</b>	GRAY	<b>SKU Number:</b>	/
<b>Re-test:</b>	Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>	<b>Charge Vendor:</b> Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
<b>Previous Report No.:</b>	/		
<b>Addendum Report:</b>	Yes: <input type="checkbox"/>	No: <input checked="" type="checkbox"/>	
<b>Reason For Addendum:</b>	/		

TEST PROPERTY	PASS	C.A.R.	FAIL	COMMENTS
Labeling				NOT REQUEST
Physical Characteristics				NOT REQUEST
Construction Qualities				NOT REQUEST
Performance	X			
Colorfastness				NOT REQUEST
Flammability				NOT REQUEST
Analytical				NOT REQUEST

C/N LSZ02029 SZ

*EJ*



















AMT-FACTS

**MERCHANDISE TESTING LABORATORIES, INC. TEST PROTOCOL FOR  
MC - 3022 - US  
Outdoor Table**

Test Name	ANSI/BIFMA Reference	Frequency	Test Description	Pass/Fail Criteria	Result
Racking Test	ANSI/BIFMA X5.5-98 Section 10	1	Shall Be No Loss Of Serviceability. Extendible Members Shall Meet The Pull Force Test Requirements In Section 25. Position The Unloaded Unit At A 45° Angle Or Balance Point With One End On The Floor And The Other End Raised And Supported For 30 Minutes. Lower The Unit Without Impact Onto The Test Platform. Repeat The Above Steps On The Opposite End Of The Product. Perform The Pull Force Test On All Extendible Members.	NO FAILURE	PASS
Drop Test	ANSI/BIFMA X5.5-98 Section 11	1	Shall Be No Loss Of Serviceability. Extendible Members Shall Meet The Pull Force Test Requirements In Section 25. Raise One End Of The Unloaded Unit So That The Bottom Of The Gliders Or Casters Are 254mm (10 In.) Off The Test Platform Or At The Balance Point, Whichever Is Lower. Release The End Of The Long Axis Of The Unit Being Tested And Allow A Free Fall To The Test Platform. Repeat The Above Steps For The Other End Of The Unit. Perform The Pull Force Test On All Extendible Members.	NO FAILURE	PASS
Leg Strength Test - Functional Force	ANSI/BIFMA X5.5-98 Section 12	1	Shall Be No Loss Of Serviceability. After Application Of The Functional Loads, Each Extendible Member In A Post-stal Attached To A Support Member Shall Be Tested And Meet The Pull Force Test Requirements In Section 25. The Unloaded Unit Shall Be Positioned On Its Top, On A Test Platform And Secured In Place. Attach A Loading Device To The Support Member To Be Tested Within 25mm (1 In.) Of The End Of The Support Member/Glider Which Makes Contact With The Floor. Gradually Apply The Horizontal Functional Forces ("A" And "B"), One At A Time As Described In Figure 12. Repeat The Above Steps For Each unique Type Of Non-symmetrically Placed Supporting Member On The Unit.  *Calculate The Functional Force "A" As Follows (Not To Exceed 445 N (100 lbf.)): Category I: "A" = 0.5 x (Unit Weight, kg) x 9.8 + 222N "A" = 0.5 x (Unit Weight, lb.) + 50 lbf. Category I: "A" = 0.5 x (Unit Weight, kg) x 9.8 + 222N "A" = 0.5 x (Unit Weight, lb.) + 50 lbf.  *Calculate The Functional Force "B" As (0.5 x "A")	NO FAILURE UNIT WEIGHT: 51.5 LBS A: 75.9 LBS B: 37.9 LBS (CATEGORY I)	PASS



**MTL-AGTS**

Lab Number: 5502-343-1331

**MERCHANDISE TESTING LABORATORIES, INC. TEST PROTOCOL FOR  
MC - 3022 - US  
Outdoor Table**

Test Description	ANSI/BIFMA X5.5-98 Section 12	1	Shall Cause No Sudden And Major Change In The Structural Integrity Of The Product. The Unloaded Unit Shall Be Positioned On Its Top, On A Test Platform And Secured In Place. Attach A Loading Device To The Support Member To Be Tested Within 25mm (1 In.) Of The End Of The Support Member Which Makes Contact With The Floor. Gradually Apply The Horizontal Proof Forces ("A" And "B"), One At A Time As Described In Figure 12. Repeat The Above Steps For Each unique Type Or Non-symmetrical Placed Supporting Member On The Unit.	NO FAILURE UNIT WEIGHT: 51.5 LBS A: 113.7 LBS B: 56.9 LBS (CATEGORY I)	PASS
Leg Strength Test - Proof Force		1	* Calculate The Proof Force "A" (Not To Exceed 668 N (150 lbf)) And "B" As Follows:  Proof Force "A" = 1.5 x (Functional Force "A") Proof Force "B" = 1.5 x (Functional Force "B")		
Stability Under Vertical Load Test	ANSI/BIFMA X5.5-98 Section 13.3	1	Shall Not Tip Over. The Unit Shall Be Placed On A Level Platform. Place The Edge Of A 19mm (3/4" In.) Thick By 305mm (12 In.) Diameter Wood Disc 25mm (1 In.) From The Edge Of The Top At The Least Stable location. Place A 57kg (125 lb.) Static Load On The Disc.	NO TIPPING OVER	PASS



**MIL-AGOTS**

Lab Number:

5502-343-1331

**MERCHANDISE TESTING LABORATORIES, INC. TEST PROTOCOL FOR**

**MC - 3022 - US**  
**Outdoor Table**

**ANSI/BIFMA X 5.5 - 1998**  
**Table 1 Test Loads**

Surface Class	Surface Size	Functional Load		Proof Load	
		Concentrated	Distributed	Concentrated	Distributed
Primary	≤ 1143 mm length (Length ≤ 45 in.)	91 kg (200 lb.)	N/A	136 kg (300 lb.)	N/A
Primary	1143 mm < length ≤ 1829 mm (45 in. < length ≤ 72 in.)	91 kg (200 lb.)	0.0268 kg/mm of perimeter (1.5 lb./in. of perimeter)	136 kg (300 lb.)	0.0402 kg/mm of perimeter (2.3 lb./in. of perimeter)
Primary	Length > 1829 mm (Length > 72 in.)	Two loads of 91 kg (200 lb.) each	0.0268 kg/mm of perimeter (1.5 lb./in. of perimeter)	Two loads of 136 kg (300 lb.) each	0.0402 kg/mm of perimeter (2.3 lb./in. of perimeter)
Secondary	≤ 406 mm depth (≤ 16 in. depth)	N/A	0.05 kg/mm (3.0 lb./in.)	N/A	0.075 kg/mm (4.5 lb./in.)
Secondary	> 406 mm depth (> 16 in. depth)	N/A	0.09 kg/mm (5.0 lb./in.)	N/A	0.14 kg/mm (7.5 lb./in.)
Adjustable Keyboard	≤ 914 mm depth (≤ 36 in. depth)		30 kg (66 lb.)		45 kg (100 lb.)
Adjustable Keyboard	> 914 mm depth (> 36 in. depth)		45 kg (100 lb.)		68 kg (150 lb.)
Writing Shelves			11 kg (25 lb.)		



(5506) 159-0413

Page 2 of 2

**EXECUTIVE SUMMARY:**

The submitted sample demonstrated good performance characteristic in Concentrated Proof Load Test, Distributed Proof Load Test, Drop Test and Leg Strength Test per Section 4.4, 4.5, 11 and 12 of ANSI/BIFMA X5.5. (Pass)

**REMARK:**

1. Per client's request, this report covers only the evaluation of Section 4.4, 4.5, 11 and 12 of ANSI/BIFMA X5.5.
2. See enclosed worksheets for test results.

If there are questions or concerns regarding above report, please contact the appropriate LAB persons.

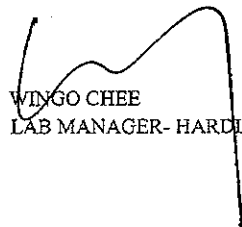
Technical questions & concerns:

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Helen.gong@cn.bureauveritas.com

BUREAU VERITAS HONG KONG LTD.

  
WINGO CHEE  
LAB MANAGER- HARDLINES

C/NLSZ02029 SZ



**BUREAU  
VERITAS**

**BUREAU VERITAS TEST PROTOCOL FOR  
MC-3090.3 - US  
Desk (BIFMA XS-5-1998)**

BV Lab Number: (5506) 159-0413(SZ)  
 Technician Name: KX  
 Test Date: JUN 08-15 2006  
 Reviewed By/Date: SZ/JUN 15 2006

Evaluation	Criterion/Method	No. Samples	Criteria	Results	Rating
<b>SUPPLEMENTAL PROTOCOLS</b>					
* CA Prop 65 Upon Request	Applicable Section from Protocol MC-6572-US	1	The sample shall be reviewed against the requirements of California Proposition 65 to determine if additional testing or labeling is required.	NR	/
Note: Additional cost, sample size & TAT may be required if testing to 1 or more supplemental protocols is necessary. Please refer to the above referenced supplemental protocol(s) for additional information.					
<b>LABELING</b>					
One Time Use Products	F.P. & L. Act (16 CFR 500)	1	Manufacturer, Packer, or Distributor's Name & Address (City, State & Zip)	NR	/
**Fair Packaging and Labeling Act	OR		Product Identification	NR	/
All Other Products	NIST Uniform Laws and Regulations Handbook 130		Net quantity of contents shall be expressed in terms of weight or mass, measure, numerical count, or combination so as to give accurate information to facilitate consumer comparison (U.S. and metric units).	NR	/
**Uniform Packaging and Labeling Regulations			Shall indicate country of origin legibly, permanently, and in comparable size and close proximity to any mention of country other than country in which the article was manufactured or produced. Must be visible at point of purchase.	NR	/
**Country of Origin Marking	19 CFR 134	1	Use/care instructions that are clear and understandable shall be provided in language appropriate to destination countries.	NR	/
Use Labeling	H-1057	1	Shall include assembly, use, maintenance, and safety information as required with no errors or spelling mistakes	NR	/
Instructions	H-1057	All		NR	/
<b>ANALYTICAL</b>					
* Lead In Surface Coating	ASTM E1613-04 / E1645-01 (Mod.)	1	Shall not exceed 600 ppm (0.06% by weight) total lead.	NR	/
<b>PHYSICAL CHARACTERISTICS</b>					
Dimensions (L x W x H)	H-1056	1	Report overall dimensions; shall meet label claims (if applicable).	NR	/
Weight	H-1056	1	Report overall weight; shall meet label claims (if applicable).	NR	/
Parts Inventory	H-1057	1	Shall meet label claims.	NR	/
<b>CONSTRUCTION &amp; WORKMANSHIP</b>					
Sharp Points / Edges	16 CFR 1500.48/1500.49	All	Shall have no sharp points/edges, other than those required for function. Mod.-expanded scope to other products	NR	/



**BUREAU  
VERITAS**

BV Lab Number: (5506) 159-0413(SZ)  
 Technician Name: KY

MC-3090.3 -US  
 Desk (BIFMA X5.5-1998)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
Defects	H-1057	All	Shall have no discernible surface degradation, including crazing, shivering, denting, bubbles, cracks, stains, deformations, chips, fractures, heavy lines, waves, shear marks, scratches, scuff marks, indentations, or blisters. Shall have no components missing, malformed, and/or fractured.	NR	/
Workmanship	H-1057	All	Claimed features	NR	/
Number of Drawers	H-1057	All	Claimed features	NR	/
Drawer Stops	H-1057	All	Claimed features	NR	/
Number of Doors	H-1057	All	Claimed features	NR	/
Number of Shelves	H-1057	All	Claimed features	NR	/
Leg Height Adjustment	H-1057	All	Claimed features	NR	/
<b>PERFORMANCE</b>					
Functionality	H-1058	All	Shall function as intended. Report details of evaluation (materials used / features tested / consumables / method / etc.) Apply to all desk products.	NR	/
Static Load	ANSI BIFMA X5.5-1998			NR	/
Concentrated Functional Load	Section 4.2	1	Shall withstand 200 lb load (two 200 lb loads if over 72 in long) for 60 min without loss of serviceability.	NR	/
Distributed Functional Load	Section 4.3	1	Shall withstand load based on surface perimeter (see Table 1) for 60 min without loss of serviceability.	NR	/
Concentrated Proof Load	Section 4.4	1	Shall withstand 300 lb load (two 300 lb loads if over 72 in long) for 15 min without sudden and major change in structural integrity.	M Length: 72" LOAD: 300LBS	PASS
Distributed Proof Load	Section 4.5	1	Shall withstand load based on surface perimeter (see Table 1) for 15 min without sudden and major change in structural integrity.	M LOAD: (29.5/8" + 72") x 2 x 2.3 = 467.5LBS	PASS
Transaction Surface Torsional Load	Section 4.6	1	Shall withstand 75 lb hanging weight for 15 min without loss of serviceability.	NR	/
Extendible Member Proof Load (not applicable to pencil / center drawers)	Section 4.7	1	Shall withstand a load of 0.023 lb/in <sup>2</sup> for 15 min closed followed by 15 min open without sudden and major change in structural integrity.	NR	/
Top Load Ease	ANSI BIFMA X5.5-1998, Section 5	1	Shall withstand 20,000 cycles of application and removal of a 200 lb weight without loss of serviceability.	NR	/



**BUREAU  
VERITAS**

BV Lab Number: (5506) 159-0413(SZ)  
 Technician Name: KY

**MC-3090.3 - US  
 Desk (BIFMA X5.5-1998)**

Evaluation	Claiton/Method	No. Samples	Criteria	Results	Rating
Locks (if applicable)	ANSI BIFMA X5.5-1998	1	Apply to applicable locks.	NR	/
Extendible Member Lock Force	Section 6.2	1	Shall withstand 50 lb outward force and 50 lb upward and upward force at each applicable location (see Figure 6a), while locked, unloaded and loaded, without loss of serviceability.	NR	/
Door Lock Force	Section 6.3	1	Shall withstand 50 lb force in the direction of initial door travel, while locked, without loss of serviceability.	NR	/
Locking Mechanism Cycle	Section 6.4	1	Shall withstand 5000 cycles through full range of lock / unlock without loss of serviceability.	NR	/
Extendible Member Cycle	ANSI BIFMA X5.5-1998	1	Apply to all extendible members (e.g., drawers).	NR	/
Members Deeper than Wide	Section 7.2	1	Shall withstand 50,000 open / close cycles without loss of serviceability.	NR	/
Members Wider than Deep	Section 7.3	1	Shall withstand number of open / close cycles as specified in Table 2 without loss of serviceability.	NR	/
Center / Pencil Drawers	Section 7.4	1	Shall withstand 10,000 open / close cycles without loss of serviceability.	NR	/
Out Stop (not applicable to pencil / center drawers)	ANSI BIFMA X5.5-1998, Section 8	1	Shall withstand 5 rapid openings from a position 1.5 in from fully closed and impacting the out stop, followed by 15,000 cycles of opening from 2 in away from the out stop and impacting the out stop, without loss of serviceability.	NR	/
Rebound (not applicable to pencil / center drawers)	ANSI BIFMA X5.5-1998, Section 9	1	Loaded extendible member shall withstand 5 closings with a force of 1 lb/lb of load, not to exceed 40 lbf, without loss of serviceability. Rebound position shall not be greater than 1.5 in from closed position.	NR	/
Racking	ANSI BIFMA X5.5-1998, Section 10	1	Shall withstand 30 min with one end raised at an angle of 45°, followed by 30 min with the opposite end raised at 45°, without loss of serviceability.	NR	/
Drop	ANSI BIFMA X5.5-1998, Section 11	1	Shall withstand a free fall drop of one end of the unit raised to a height of 10 in, followed by a free fall of the other end, without loss of serviceability.	M	PASS
Leg Strength	ANSI BIFMA X5.5-1998, Section 12	1	Shall withstand horizontal forces as described per section. Shall be no loss of serviceability for functional strength test. Shall be no sudden and major change in structural integrity for proof strength test.	M FUNCTIONAL A=67.5LBS B=33.75LBS PROOF: A=101.25LBS B=50.625LBS	PASS



**BUREAU  
VERITAS**

BV Lab Number: (5506) 159-0413(SZ)  
 Technician Name: KY

MC-3090.3 -US  
 Desk (BIFMA X5.5-1998)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
Stability	ANSI BIFMA X5.5-1998	1	Shall withstand full opening of both largest capacity loaded extendible members without tipping over.	NR	/
Extendible Members Open	Section 13.2	1	Shall withstand a 125 lb load 1 in from the edge in the least stable position without tipping over.	NR	/
Vertical Load	Section 13.3	1	Shall withstand full opening of largest capacity loaded extendible member without tipping over.	NR	/
Freestanding Pedestal	Section 13.4	1	Shall withstand 2500 cycles back and forth over obstacles without loss of serviceability.	NR	/
Caster Durability for Mobile Pedestals (if applicable)	ANSI BIFMA X5.5-1998, Section 14	1	Shall withstand 2500 cycles each of horizontal, vertical, and swivel motion, with a 10 lb load, without loss of serviceability.	NR	/
Adjustment for Adjustable Keyboard Surfaces and Input Device Supports	ANSI BIFMA X5.5-1998, Section 15	1	Closed extendible members shall withstand 30 lb opening force with one member fully extended without loss of serviceability.	NR	/
Interlock (if so equipped)	ANSI BIFMA X5.5-1998, Section 16	1	Apply to doors with vertical or horizontal hinges.	NR	/
Hinged Door	ANSI BIFMA X5.5-1998	1	Door with 66 lb load attached shall withstand 10 open / close cycles without loss of serviceability.	NR	/
Strength (vertically hinged doors only)	Section 17.2	1	Shall withstand 20,000 open / close cycles without loss of serviceability.	NR	/
Wear and Fatigue	Section 17.3	1	Shall withstand 5 cycles of closing with a force of 10 lb/in followed by 5 cycles of opening with a force of 10 lb/in without loss of serviceability. (Cracked or broken glass is a loss of serviceability.)	NR	/
Slam Open / Closed (vertically hinged doors only)	Section 17.4	1	Shall withstand 10,000 hit / drop cycles without loss of serviceability.	NR	/
Drop (horizontally hinged doors only)	Section 17.5	1	Apply to horizontal or vertical receding doors.	NR	/
Cycling for Receding Doors	ANSI BIFMA X5.5-1998	1	Shall withstand 10,000 extend / retract cycles with actuator attached to right side followed by 10,000 extend / retract cycles with actuator attached to left side without loss of serviceability.	NR	/
Wear and Fatigue (horizontal receding door)	Section 18.2	1		NR	/





**BUREAU  
VERITAS**

BV Lab Number: (5506) 159-0413(SZ)  
 Technician Name: KY

**MC-3090.3 - US  
 Desk (BIFMA X5.5-1998)**

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
Wear and Fatigue (vertical recessing door)	Section 18.3	1	Shall withstand 20,000 extend / retract cycles without loss of serviceability.	NR	/
Sliding and Roll Front Door	ANSI BIFMA X5.5-1998		Do not apply to doors that are hinged.	NR	/
Wear and Fatigue	Section 19.2	1	Shall withstand 20,000 open / close cycles without loss of serviceability.	NR	/
Slam (doors which free fall open or closed)	Section 19.3	1	Shall withstand 50 cycles of free fall (open or closed) without loss of serviceability.	NR	/
Slam Open and Closed (doors which do not free fall)	Section 19.4	1	Door with calculated load attached shall withstand 50 cycles of slam to stop followed by 50 cycles of slam to opposite stop without loss of serviceability.	NR	/
Door Latch	ANSI BIFMA X5.5-1998, Section 20	1	Shall operate 20,000 cycles without loss of serviceability.	NR	/
Caster Durability for Desks and Tables (if applicable)	ANSI BIFMA X5.5-1998, Section 21	1	Shall withstand 2500 cycles back and forth without loss of serviceability.	NR	/
Work Surface Adjustment	ANSI BIFMA X5.5-1998		Do not apply to adjustable keyboard surfaces.	NR	/
Vertical Adjustment	Section 22.2	1	Shall withstand a total of 1000 cycles of adjustment motion in each of four ranges of adjustment (total of 4000 cycles) without loss of serviceability.	NR	/
Horizontal Adjustment	Section 22.3	1	Surface with 100 lb load shall withstand 4000 cycles each of full adjustment of horizontal motion and swivel motion without loss of serviceability.	NR	/
Force Stability (tall units)	ANSI BIFMA X5.5-1998, Section 23	1	Shall withstand 40 lb force applied at different locations or tilt to 10° without tipover or loss of serviceability or dislodgement of desk / table products.	NR	/
Dislodgement (tall units)	ANSI BIFMA X5.5-1998, Section 24	1	Shall withstand horizontal swinging impact from 50 lb bag at six different locations without dislodgement of unit or its components from desk / table with 300 lb load.	NR	/
Pull Force	ANSI BIFMA X5.5-1998, Section 25	1	Measure and record maximum force that will fully open an extendible member or door. Shall not exceed 11.2 lbf.	NR	/
Protective Caps on Legs	H-1058	1	Shall be non-marking	NR	/
Stain Resistance	H-1015	1	No objectionable stain by most household stains after 2 hours. Placement: wine, ketchup, mustard, grape juice, cooking oil	NR	/



**BUREAU  
VERITAS**

BV Lab Number: (5506) 159-0413(SZ)  
 Technician Name: KY

MC-3090.3 - US  
 Desk (BIFMA XS.5-1998)

Evaluation	Citation/Method	No. Samples	Criteria	Results	Rating
Resistance to Hot Water	Fed. Spec AA-H-001895B-80 Section 4.4.1.2	1	Pour 25 mL of boiling water and allow to cool. Dry surface shall have no graying or spotting	NR	/
Moisture Content % (wood only)	H-1063	1	Should be between 8% and 12%.	NR	/
Leg		1	Record data only	NR	/
Top		1	Record data only	NR	/
*Ease of Assembly	H-3027	1	Shall provide ease of assembly and shall be accurate.	NR	/
Instruction Layout	H-1057	1	Shall be easy to follow	NR	/

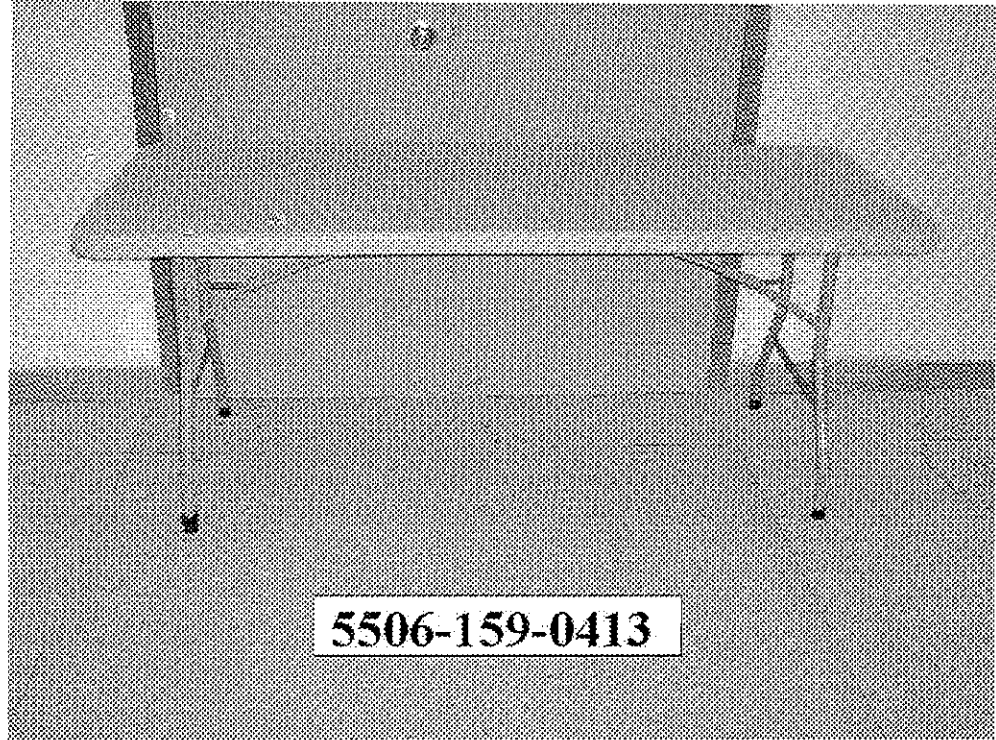
Key: \* Additional Charge For This Test \*\* Mandatory Requirement

Results Key:

M	Meets	NM	Does Not Meet
NA	Not Applicable	NT	Not Tested
C	Claimed	R	Recorded

No. Of Samples Required For Complete Testing:	
No. Of (Fully Packed) Cartons For Transit Testing:	
No. Of Working Days For Complete Testing:	

Creation Date: February 1, 2006  
 Editorial Revision Date:  
 Pricing Review Date:  
 Technical Review Date:



5506-159-0413