

NINGBO HONGMENG FURNITURE CO., LTD
NO.178 TAISHOUFANG HENGHE TOWN CIXI CITY ZHEJIANG PROVINCE.CHINA

Sample Description : FOLDING HDPE ADIRONDACK CHAIR

Style / Item No. : HRXA001

As above test item and its relevant information regarding to the submission are provided and confirmed by the applicant. SGS is not liable to either the test item or its relevant information, in terms of the accuracy, suitability, reliability or/and integrity accordingly.

Sample Receiving Date : May 11, 2020

Test Performing Date : May 11, 2020 to May 19, 2020

Test Performed : Selected test(s) as requested by applicant

Test Result(s) : For further details, please refer to the following page(s)

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co., Ltd. Xiamen Branch



Beck Hong
Authorized Signatory



SGS-CSTC Standards Technical Services Co., Ltd.
Xiamen Branch Testing Center Handlines

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TESTS AND RESULTS

Test Conducted:

Refer to ASTM F1838 : 2019 Adult and Children’s Plastic Chairs for Outdoor Use

No. of Sample:

1 piece(s) (Sample 1). For more sample information and pictures, please refer to the following page.

Type:

Class A (residential) adult and children’s plastic chairs, plastic chairs intended for outdoor use by the customer around the home.

Class B (nonresidential) adult and children’s plastic chairs, plastic chairs intended for outdoor use by the customer in all other areas, including those defined as Class A.

Test Items	Test Methods & Requirements	Test Results
7. General Requirements		
7.1 All chairs meeting these standard performance requirements shall be made from polymeric materials that meet the requirements for outdoor weathering given in Section 7.2.		
7.2 Weatherability Test	7.2.1 Polymeric material used outdoors shall be exposed for weatherability using accelerated weathering chambers and shall retain at least 70 % of its original tensile strength. 7.2.2 Specimens to be tested shall be normal 0.125±0.01-in. (3.2±0.03-mm) thick Type 1 tensile test bars injection molded from the same material used in finished chairs or tensile bars cut from finished parts, as described in Test Method D638. 7.2.3 <i>Tensile Test</i> —Test exposed and non-exposed (control samples) tensile bars, in accordance with Test Method D638, at a testing rate of 2 in. (51 mm)/min. 7.2.4 The specimens are to be exposed according to one of the following procedures: (1) 1000 h in accordance with Procedure B of Practice D2565, using a Type B or BH xenon-arc apparatus; (2) 720 h in accordance with Practice G23, using a Type E carbon-arc weathering device; (3) 1000 h in accordance with Cycle A of Practice D4329, using UVB-313 bulbs; or (4) 2000 h in accordance with Cycle A of Practice D4329, using UVA-340 bulbs. For Practice D2565 or Practice G23, the test cycle shall consist of 102 min of light followed by 18 min of light and spray. For Practice D4329, the test cycle shall consist of 8 h of light followed by 4 h of dark with condensation. If Practice G23 is used, the blackbody temperature shall be 145±5°F (63±3°C).	NT
8. Test Procedure—Class A (Residential)		
8.1 <i>Initial Inspection</i> —Inspect each chair thoroughly for breaks, fractures, cracks, or other structural damage prior to testing. Any chairs exhibiting structural damage shall not be tested.		



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Test Items	Test Methods & Requirements	Test Results
8.3 Static Load Test No. 1	<p>8.3.1 Position the chair on the glass testing base as near as possible to the center of the glass.</p> <p>8.3.2 Apply the (1) for a Children's Plastic Chair, 120±1.2-lb (54 ±0.5-kg) bag, or (2) for an Adult Plastic Chair, 300 6 3-lb (136±1.4-kg) bag at a speed not to exceed 6 in. (152 mm)/s to the geometrical center of the seat.</p> <p>8.3.3 Withdraw the weight from the seat after 10±1 s.</p> <p>8.3.4 Allow 10±1 s of recovery time.</p> <p>8.3.5 Repeat the steps given in 8.3.2 – 8.3.4 eight additional times.</p> <p>8.3.6 Repeat the step given in 8.3.2 one time, allowing the weight to remain on the seat for 30 min 6 10 s, and then withdraw the weight from the seat.</p> <p>8.3.7 Observe and report any breaks, cracks, fractures, or other structural damage.</p>	NA
8.4 Static Load Test No. 2	<p>8.4.1 Position the chair on the plywood testing base (see Fig. 3) as near as possible to the center of the plywood.</p> <p>8.4.2 Repeat the steps given in 8.3.2 – 8.3.7.</p>	NA
8.5 Impact Test No. 1	<p>8.5.1 Position the chair on the glass testing base (see Fig. 2) as near as possible to the center of the glass.</p> <p>8.5.2 Position the (1) for a Children's Plastic Chair, 60±0.6-lb (27±0.3-kg) bag or (2) for an Adult Plastic Chair, 150±1.5-lb (68±0.7-kg) bag at a height of 6±0.1 in. (152±2.5 mm) above the center of the chair seat, at rest.</p> <p>8.5.3 Allow the bag to free-fall onto the center of the chair seat.</p> <p>8.5.4 Repeat the steps given in 8.5.2 and 8.5.3 nine additional times.</p> <p>8.5.5 Observe and report any breaks, cracks, fractures, or other structural damage.</p>	NA
8.6 Impact Test No. 2	<p>8.6.1 Position the chair on the plywood testing base as near as possible to the center of the plywood.</p> <p>8.6.2 Repeat the steps given in 8.5.2 – 8.5.5.</p>	NA



Test Items	Test Methods & Requirements	Test Results																		
8.7 Rear Leg Test No. 1	<p>8.7.1 Place the chair on the glass testing base as near as possible to the center of the glass.</p> <p>8.7.2 Position the chair with the rear legs unrestrained and the front legs resting but not restrained on wooden blocks, of width suitable to accommodate the chair legs.</p> <p>8.7.3 Height of the wooden blocks is determined by the distance of leg stance.</p> <table border="0"> <tr> <td colspan="2" style="text-align: center;">Children's Plastic Chair</td> </tr> <tr> <td style="text-align: center;">Leg Stance</td> <td style="text-align: center;">Block Height</td> </tr> <tr> <td>Up to 11 in. (280 mm)</td> <td>2.25 ± 0.03 in. (57 ± 0.6 mm)</td> </tr> <tr> <td>Over 11 in. (280 mm)</td> <td>3.0 ± 0.03 in. (76 ± 0.8 mm)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Adult Plastic Chair</td> </tr> <tr> <td style="text-align: center;">Leg Stance</td> <td style="text-align: center;">Block Height</td> </tr> <tr> <td>Under 15 in. (381 mm)</td> <td>3 ± 0.03 in. (76 ± 0.8 mm)</td> </tr> <tr> <td>15 to 17 in. (381 to 432 mm)</td> <td>3.75 ± 0.04 in. (95 ± 0.95 mm)</td> </tr> <tr> <td>Over 17 in. (432 mm)</td> <td>4.5 ± 0.05 in. (114 ± 1.1 mm)</td> </tr> </table> <p>8.7.4 Lower the (1) for a Children's Plastic Chair, 120±1.2-lb (54±0.5-kg) bag or (2) for an Adult Plastic Chair, 300±3-lb (136±1.4-kg) bag slowly onto the front of the seat of the chair and, while supporting the back of the chair, slide the bag to the rear of the seat, to a position touching the back of the chair.</p> <p>8.7.5 Remove the load after 60±1 s.</p> <p>8.7.6 Observe and report any breaks, cracks, fractures, or other structural damage.</p>	Children's Plastic Chair		Leg Stance	Block Height	Up to 11 in. (280 mm)	2.25 ± 0.03 in. (57 ± 0.6 mm)	Over 11 in. (280 mm)	3.0 ± 0.03 in. (76 ± 0.8 mm)	Adult Plastic Chair		Leg Stance	Block Height	Under 15 in. (381 mm)	3 ± 0.03 in. (76 ± 0.8 mm)	15 to 17 in. (381 to 432 mm)	3.75 ± 0.04 in. (95 ± 0.95 mm)	Over 17 in. (432 mm)	4.5 ± 0.05 in. (114 ± 1.1 mm)	NA
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8.8 Rear Leg Test No. 2	<p>8.8.1 Place the chair on the plywood testing base (Fig. 3).</p> <p>8.8.2 Repeat the steps given in 8.7.2 – 8.7.6.</p>	NA																		
9. Test Procedure—Class B (Nonresidential)																				
<p>9.1 Initial Inspection—Inspect each chair thoroughly for breaks, fractures, cracks, or other structural damage prior to testing. Any chairs exhibiting structural damage shall not be tested.</p> <p>9.2 Separate chairs may be used to conduct the tests listed in 9.3 – 9.8 to comply with 11.1 and 11.3.</p>																				
9.3 Static Load Test No. 1	Repeat the steps given in 8.3.1 – 8.3.7 using a (1) for a Children's Plastic Chair, 150±1.5-lb (68±0.7-kg) bag or (2) for an Adult Plastic Chair, 400±4-lb (182±1.8-kg) bag.	PASS																		
9.4 Static Load Test No. 2	Repeat the steps given in 8.4.1 and 8.4.2 using a (1) for a Children's Plastic Chair, 150±1.5-lb (68±0.7-kg) bag or (2) for an Adult Plastic Chair, 400±4-lb (182±1.8-kg) bag.	PASS																		
9.5 Impact Test No. 1	Repeat the steps given in 8.5.1 – 8.5.5 using a drop height of 8 6 0.1 in. (203±2.5 mm).	PASS																		
9.6 Impact Test No. 2	Repeat the steps given in 8.6.1 and 8.6.2 using a drop height of 8 6 0.1 in. (203±2.5 mm).	PASS																		
9.7 Rear Leg Test No. 1	Repeat the steps given in 8.7.1 – 8.7.6 using a (1) for a Children's Plastic Chair, 150±1.5-lb (68±0.7-kg) bag or (2) for an Adult Plastic Chair, 400±4-lb (182±1.8-kg) bag.	PASS																		
9.8 Rear Leg Test No. 2	Repeat the steps given in 8.8.1 and 8.8.2 using a (1) for a Children's Plastic Chair, 150±1.5-lb (68±0.7-kg) bag or (2) for an Adult Plastic Chair, 400±4-lb (182±1.8-kg) bag.	PASS																		



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Remark:

1. NA – Not applicable; NT – Not tested as per client’s requirements.
2. For the sample information and pictures, please refer to the following page.
3. This test report is to supersede No. XMHL2005002203FT test report which was issued on May. 19, 2020. And the original test reports (paper and electronic) are invalid.

SAMPLE INFORMATION AND PICTURES

Weight: 17.54kg

Overall Dimensions: 740mm L x 880mm W x 890mm H

Other Dimensions: /

Sample as Received



View 1



View 2

The testing report/certificate only refers to the sample(s) tested.

End of Report



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