

**On-going Reliability Test**

No.	Test content	Test Conditions	Sample size	Ceshi pfnl	Planned test month																								
					JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC													
3.1	Vibration Test: Packaged	<ul style="list-style-type: none"> <li>●Sample Status:Packaged</li> <li>●Test Mode: Random wave</li> <li>●Frequency: 5Hz ~ 500Hz</li> <li>●Accleration: 3 Grms</li> <li>●Duration: 60 min/axis</li> <li>●Direction: X.Y.Z.</li> </ul>	1 carton	PCN																									
3.2	Drop Test: Packaged	<ul style="list-style-type: none"> <li>●Surface: Steel Plane</li> <li>●Drop sequence: 1 corner,3edges and 6 faces(Total 10 Times)</li> <li>●Height: as below</li> </ul> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Weigh (kg)</th> <th>Height (cm)</th> </tr> </thead> <tbody> <tr> <td>&lt;10</td> <td>76</td> </tr> <tr> <td>10-19</td> <td>61</td> </tr> <tr> <td>19-28</td> <td>46</td> </tr> <tr> <td>28-45</td> <td>31</td> </tr> <tr> <td>45-68</td> <td>20</td> </tr> </tbody> </table>	Weigh (kg)	Height (cm)	<10	76	10-19	61	19-28	46	28-45	31	45-68	20	1 carton	SEASON			3/8-3/12				6/14-6/18			9/13-9/17			12/13-12/17
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3.3	Drop Test: Unpackaged(Plywood)	<ul style="list-style-type: none"> <li>●Sample Statue: Unpackaged</li> <li>●Surface: Plywood over concrete</li> <li>●Drop sequence: Full corner &amp; full face</li> <li>●Height: 160 cm</li> </ul>	3PCS	BATCH	●	●	●	●	●	●	●	●	●	●	●	●													
3.4	Unpackaged Drop Test(Concrete)	<ul style="list-style-type: none"> <li>●Sample Statue: Unpackaged</li> <li>●Surface: Concrete</li> <li>●Drop sequence: Full corner &amp; full face</li> <li>●Height: 160 cm</li> </ul>	3PCS	BATCH	●	●	●	●	●	●	●	●	●	●	●	●													
3.5	TemperatureTest: Temperature Cycling	<ul style="list-style-type: none"> <li>●Sample Status:1cycle= -20℃(12h) &amp; 60℃(12h)</li> <li>●Test Sequence: 4 cycles(96h)</li> </ul>	5PCS	SEASON			3/8-3/12				6/14-6/18			9/13-9/17			12/13-12/17												
3.6	Humidity Cycling Test	<ul style="list-style-type: none"> <li>●Sample Status: Stick on the metal surface</li> <li>●Temperature: 1cycle=55℃ · 90%RH for 12h · From 55℃, 90%RH down to room temperature, keep 12h</li> <li>●Humidity: 90-95%RH</li> <li>●Test Cycle: 4cycle(96h)</li> </ul>	5PCS	SEASON			3/15-3/19				6/21-6/25			9/13-9/17			12/13-12/17												
4.1	Salt Mist Test	<ul style="list-style-type: none"> <li>●Temperature: 35℃</li> <li>●Relative Humidity: 95-98%</li> <li>●Salt solution: 5%</li> <li>●PH : 6.5 ~ 7.2</li> <li>●Duration: 72hours</li> </ul>	3PCS	BATCH	●	●	●	●	●	●	●	●	●	●	●	●													
4.2	UV Test	<ul style="list-style-type: none"> <li>●Lamp: UVA-340</li> <li>●Typical Irradiance: 0.89 W/m2/nm</li> <li>●Approximate Wavelength: 340nm</li> <li>●Exposure Cycle: 12 Cycles</li> <li>●1cycle=8h UV at 60℃ Black Panel Temp.+4h Condensational 50℃ Black Panel Temp.</li> </ul>	6PCS	BATCH			3/10-3/17				6/14-6/18			9/13-9/17			12/13-12/17												

4.2	SUN Test	<p>UV Sensor: 340nm UV Filter: Extended UV - Q18 Block Panel: uncoated Applicable Models: Xc-3 HBS</p> <table border="1"> <thead> <tr> <th>cycle name</th> <th>step</th> <th>function</th> <th>RH</th> <th>irrad.</th> <th>BP temp.</th> <th>air temp.</th> <th>time</th> </tr> </thead> <tbody> <tr> <td>ASTM G155 CYC 7</td> <td>1</td> <td>light</td> <td>50</td> <td>0.55</td> <td>70</td> <td>47</td> <td>0:05</td> </tr> <tr> <td></td> <td>2</td> <td>light + spray front</td> <td>50</td> <td>0.55</td> <td>70</td> <td>47</td> <td>0:05</td> </tr> <tr> <td></td> <td>3</td> <td>light</td> <td>50</td> <td>0.55</td> <td>70</td> <td>47</td> <td>0:05</td> </tr> <tr> <td></td> <td>4</td> <td>dark + spray front + back</td> <td>95</td> <td>-</td> <td>-</td> <td>28</td> <td>1:00</td> </tr> <tr> <td></td> <td>5</td> <td>final step - go to step 1</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p>● Test Cycle: 50 cycles ● Test Area: 1. The "logo" on the housing 2. The blank space on the housing near the light</p>	cycle name	step	function	RH	irrad.	BP temp.	air temp.	time	ASTM G155 CYC 7	1	light	50	0.55	70	47	0:05		2	light + spray front	50	0.55	70	47	0:05		3	light	50	0.55	70	47	0:05		4	dark + spray front + back	95	-	-	28	1:00		5	final step - go to step 1	-	-	-	-	-	6PCS	BATCH			3/10-3/17			6/14-6/18			9/13-9/17			12/13-12/17
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4.4	Hardness Test	<ul style="list-style-type: none"> <li>Sample Size: 3</li> </ul> <table border="1"> <thead> <tr> <th>Pencil</th> <th>Method</th> <th>Distance</th> <th>Weight</th> <th>Speed Rate</th> <th>Times</th> </tr> </thead> <tbody> <tr> <td>F</td> <td>45degree stroke linear draw on the surface</td> <td>30mm</td> <td>500g</td> <td>10mm/sec</td> <td>10</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>Test Area: 1. The blank space on the right side of the housing 2. The blank space on the housing near the light</li> </ul>	Pencil	Method	Distance	Weight	Speed Rate	Times	F	45degree stroke linear draw on the surface	30mm	500g	10mm/sec	10	3PCS	BATCH			3/2			6/15			9/14			12/14																																				
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1	Hardness Test	HRC: 56-60	AQL S-2	BATCH	●	●	●	●	●	●	●	●	●	●	●	●																																																
2	Melt Index	ASTM D1238	3PCS	SEASON			3/5			6/15			9/14			12/14																																																
3	Chemical Test	<p>I.Halogen (fluorine, chlorine, bromine, iodine) Content II.Heavy Metals Content III.European Parliament and Council Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) with its Amendments (EU) 2015/863 IV.Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH</p>	6PCS	SEASON			3/10-3/15			6/14-6/18			9/13-9/17			12/13-12/17																																																
<p>Remarks: 1. The ORT planned models are tested according to the actual monthly production models. 2. The test specifications are carried out according to the requirements of the customer's ORT.</p>																																																																