

gronograss

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composite decking

Eco-friendly Composition



Natural Wood Fibre	55%	(Hardwood fibre from sustainable sources)
Recycled Plastic	35%	(100% Recycled)
Additives	10%	(1% Anti UV + 0.5% Antioxidant + 3.5% Prime Pigment + 1% Insect Protectant + 4% Selected Process Additives)

WHY CHOOSE GRONODEC?

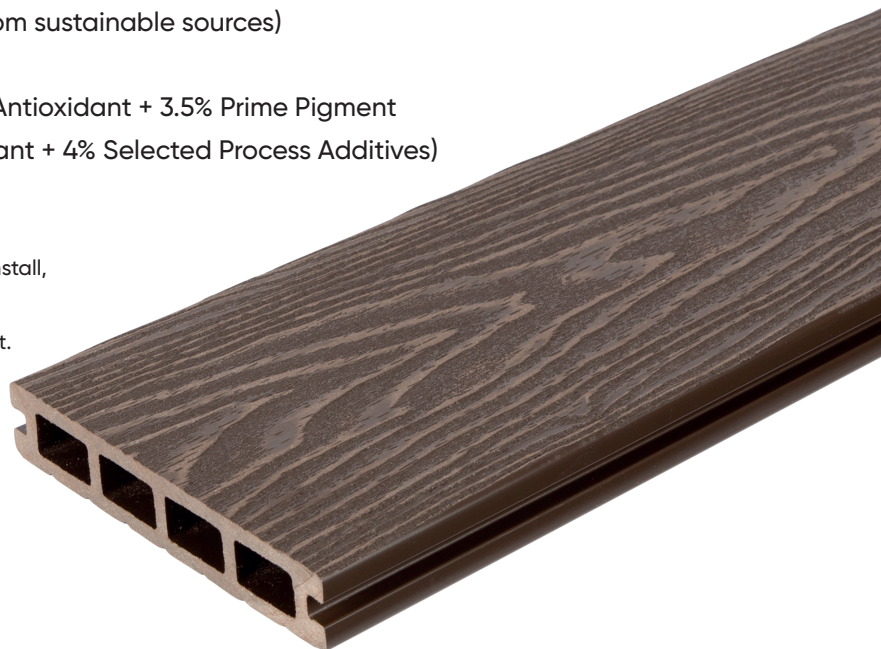
Our Gronodec Premier range of composite decking is easy to install, very low maintenance and extremely hard wearing.

It won't warp, splinter or rot and it's both slip and stain-resistant.

Available in wide variety of naturally inspired colour schemes, Gronodec eco-friendly composite decking is weatherproof and comes with the added benefit of a 25 year warranty.

Create stylish yet practical outdoor living spaces that can be enjoyed all year round - whatever the weather.

If you need any advice on choosing the best product for you then please call us on 0161 877 0929 or email sales@grono.co.uk



Unit 5, Guinness Road Trading
Estate, Manchester M17 1SB
0161 877 0929
sales@grono.co.uk
www.grono.co.uk

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H025136 Strength Test Report

Test No. 20190401

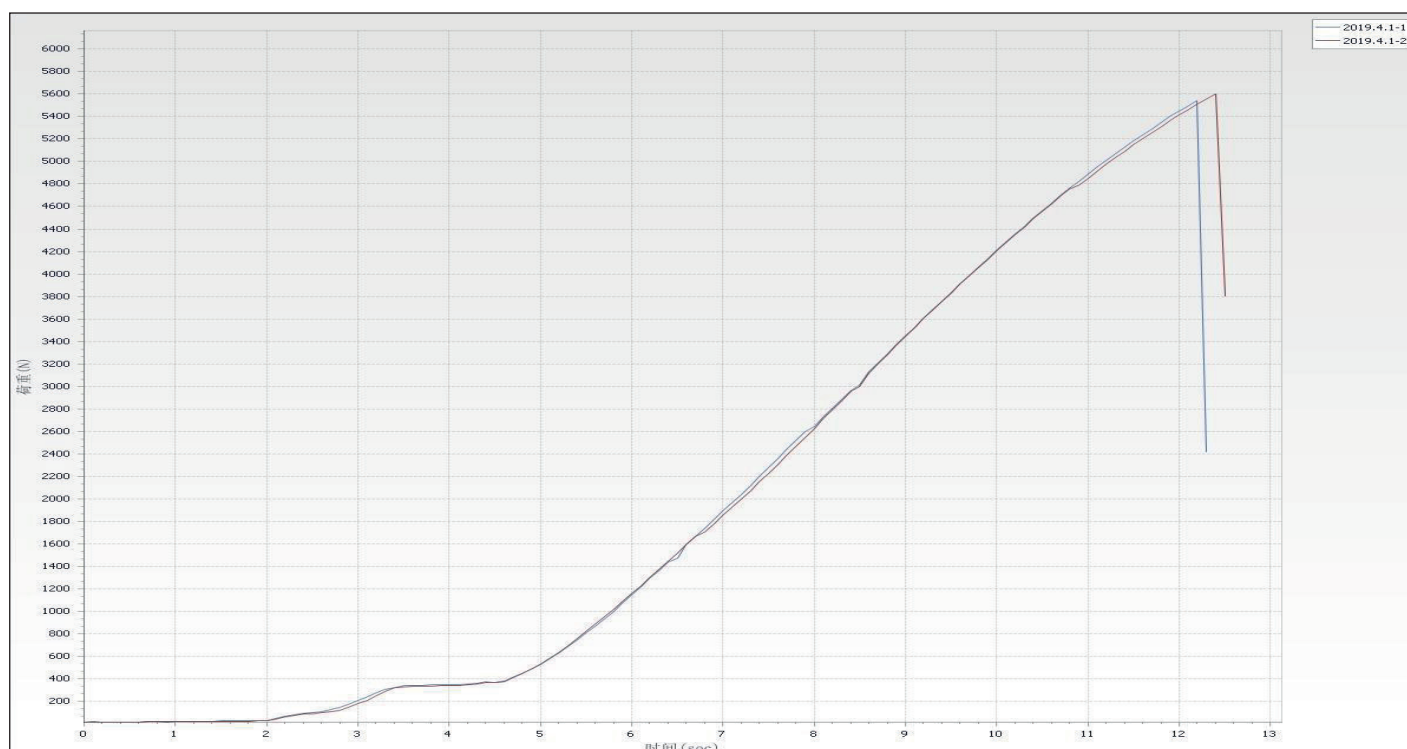
Test Standard: CE

Test Distance: 35cm

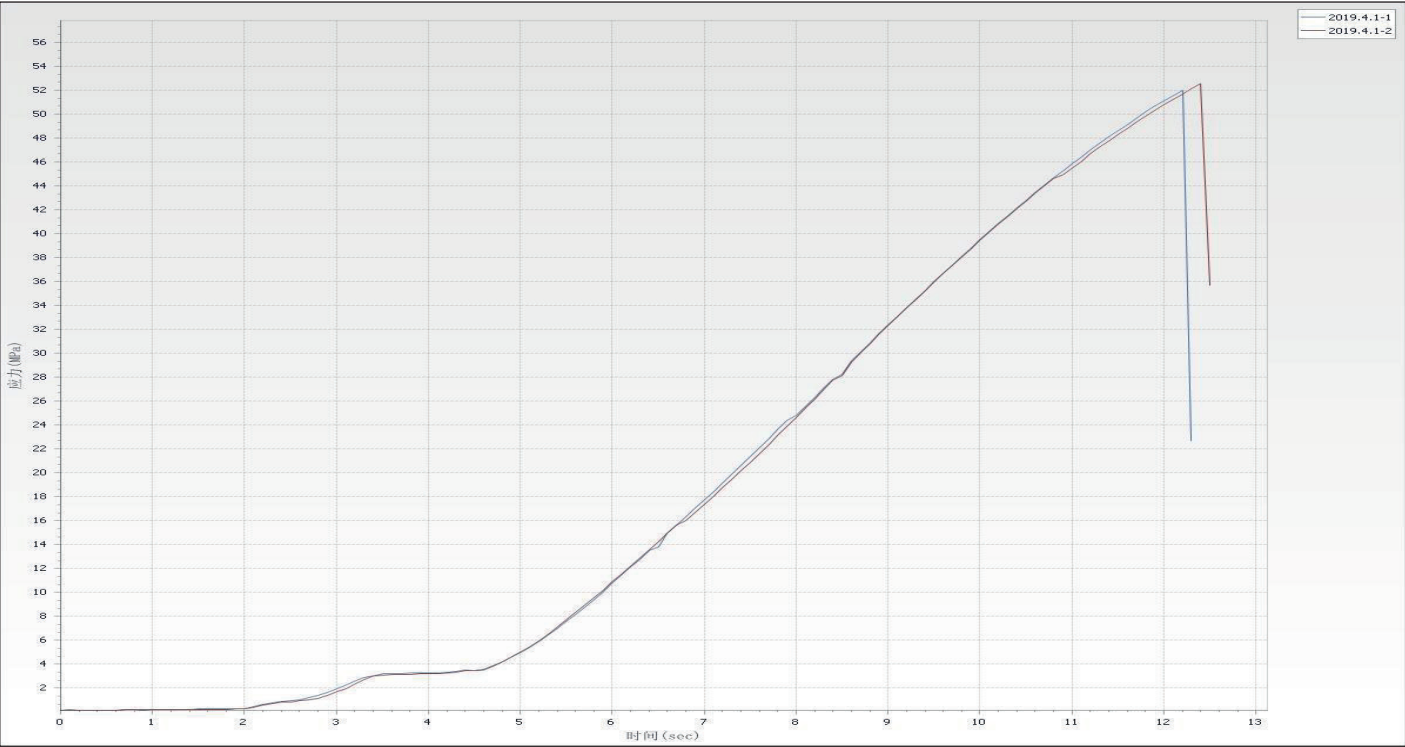
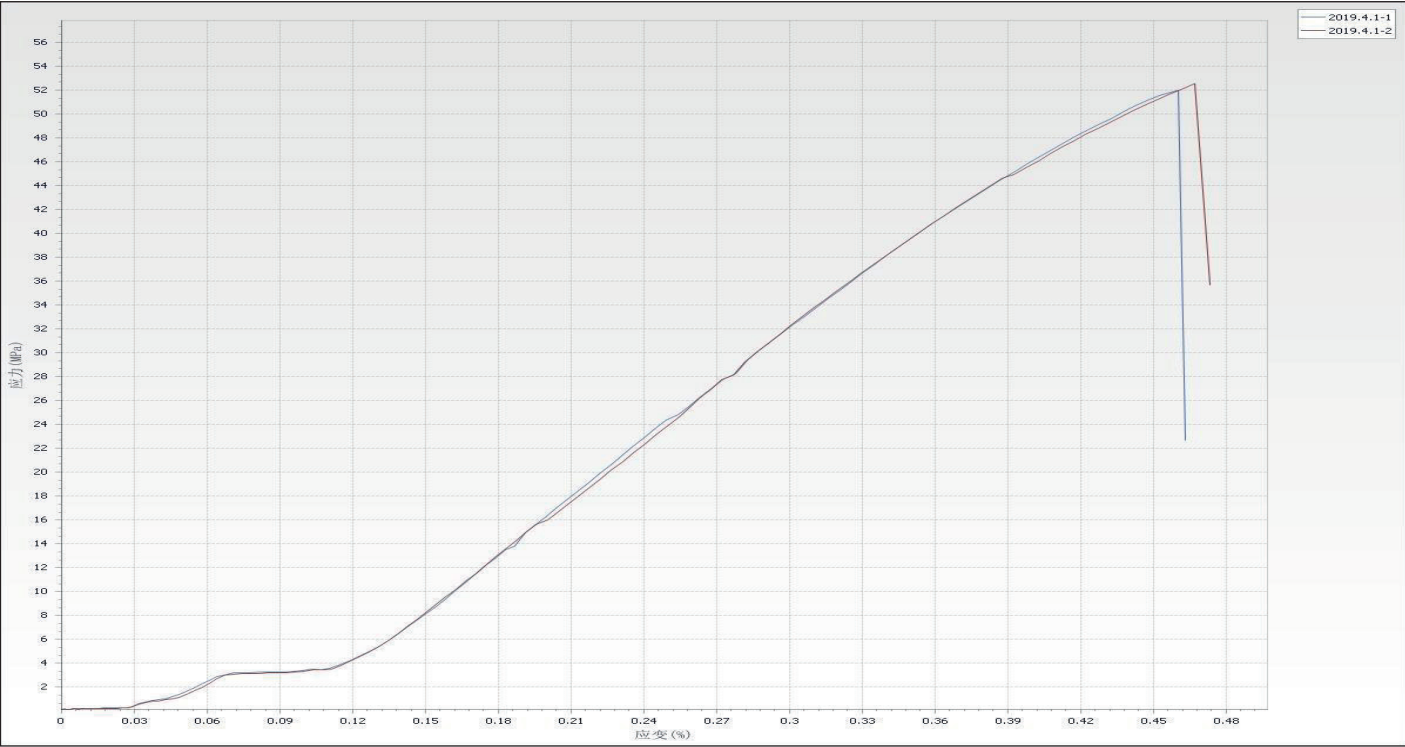
Test Temperature: 25 degrees C

Test Date: 1st April 2019

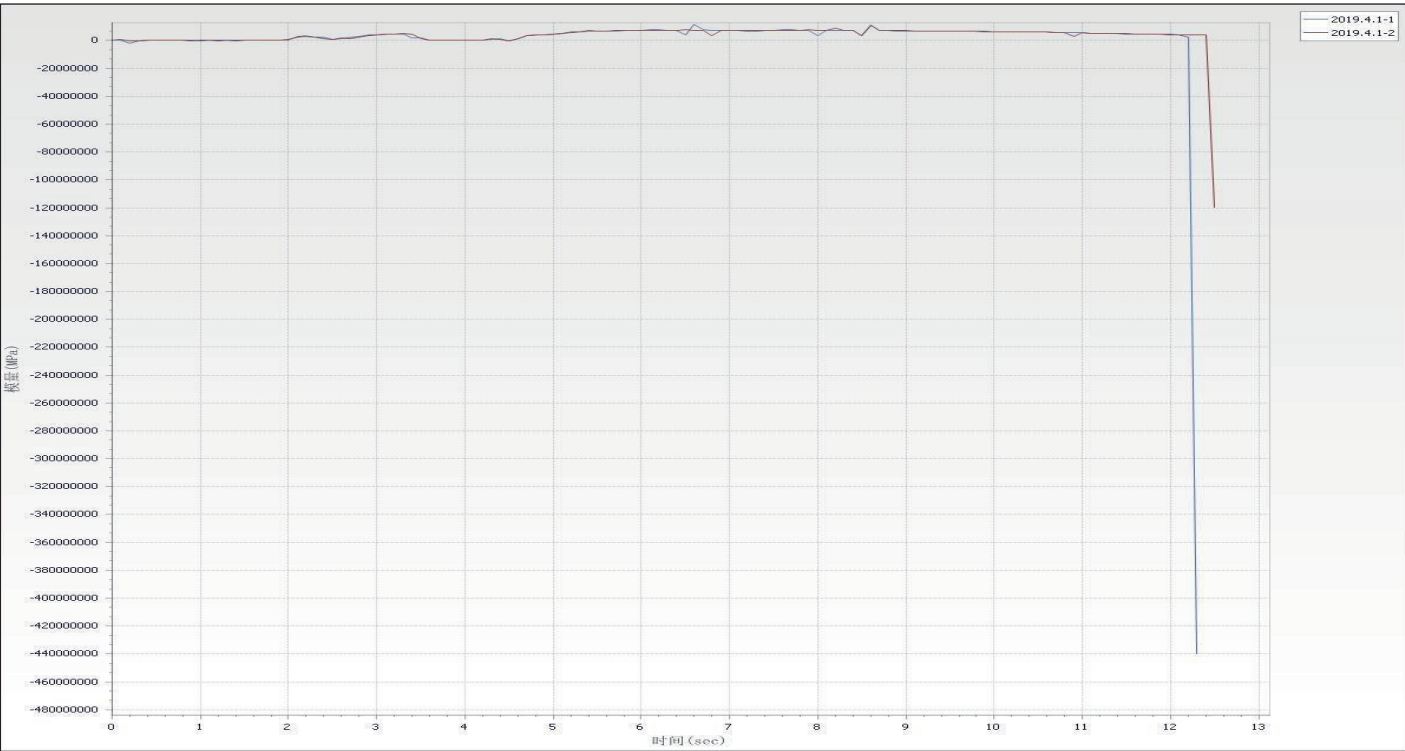
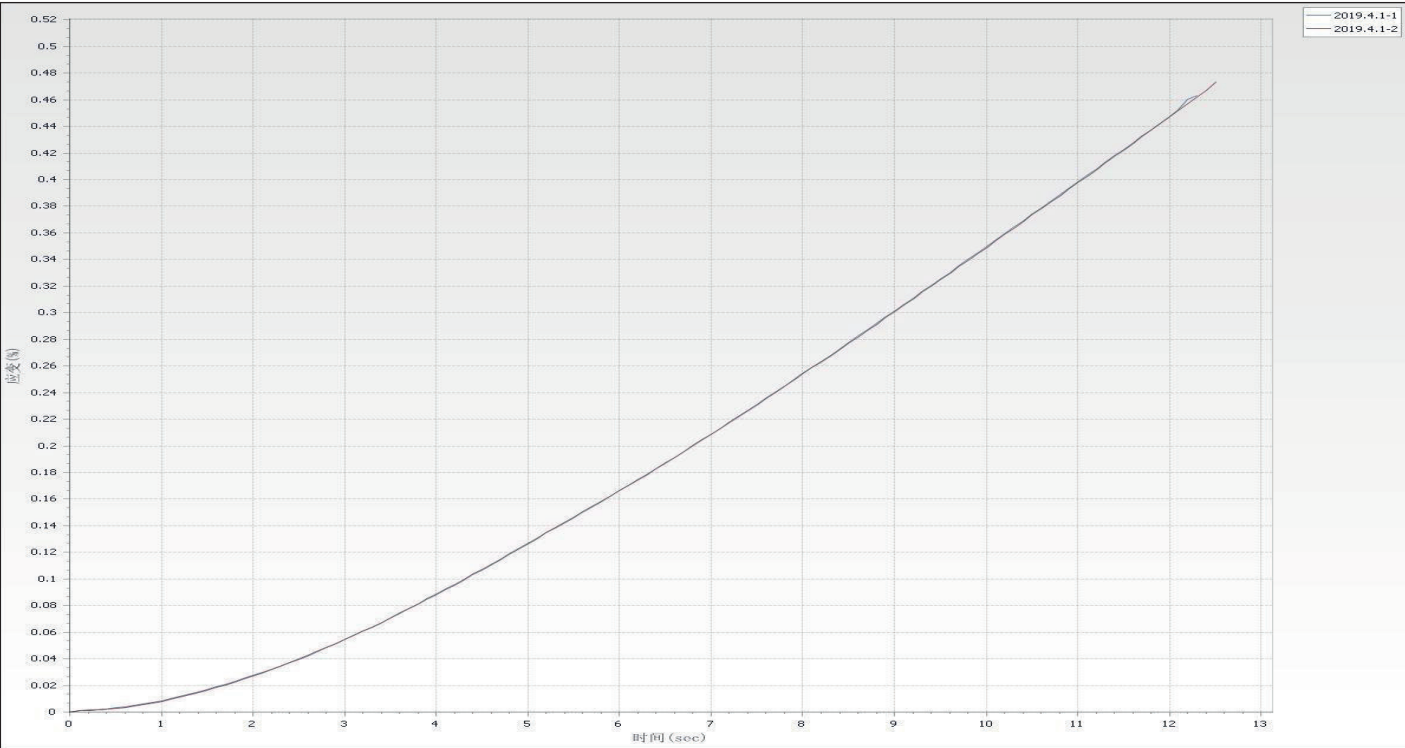
Text No.	The Maximum Loading(N)	Bending Strength (MPa)	Bending Elastic Modulus (Ei)(MPa)	Width (mm)	Thickness (mm)	Miximum Load Displacement (mm)
2019.4.1-1	5544.95	52.02	16186.93	136.00	23.00	6.754
2019.4.1-2	5601.20	52.55	15599.88	136.00	23.00	6.854
Average Value X-bar	5573.08	52.28	15893.40	136.00	23.00	6.804



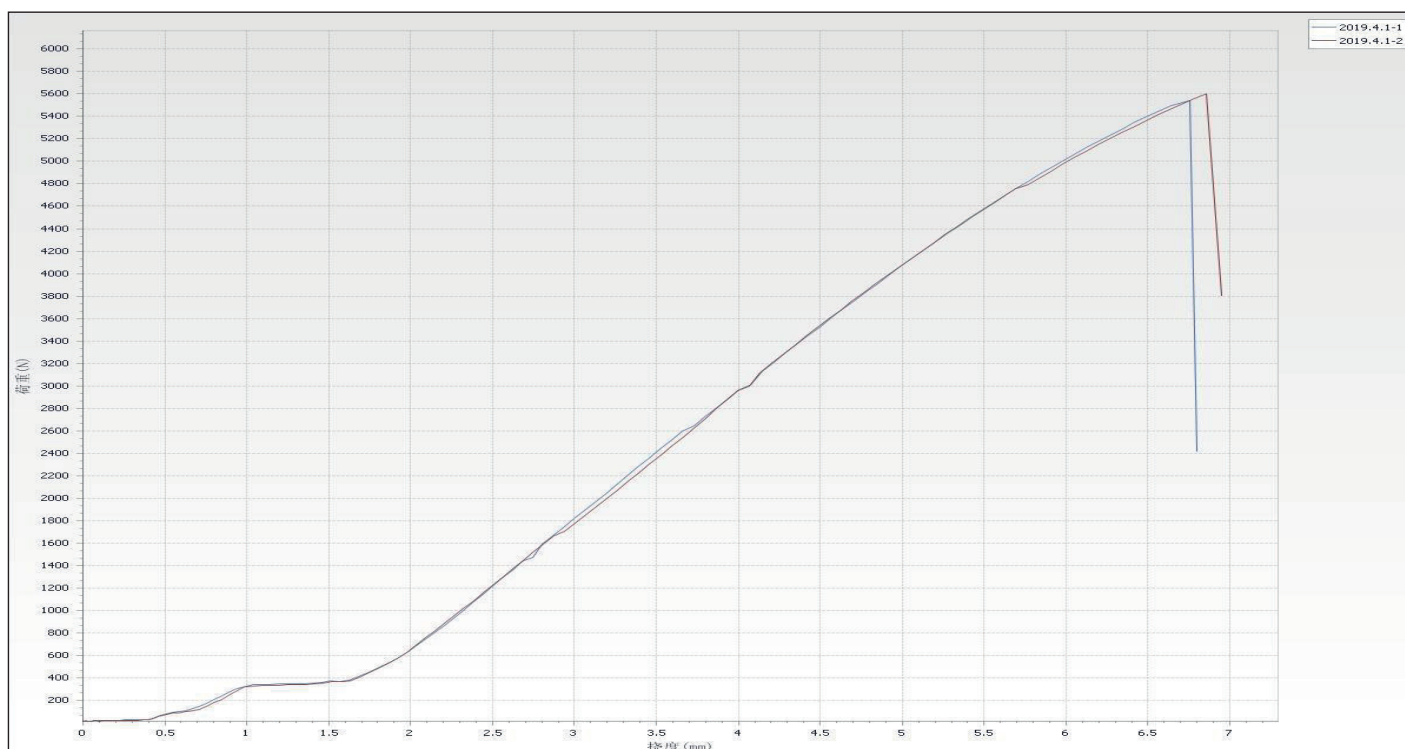
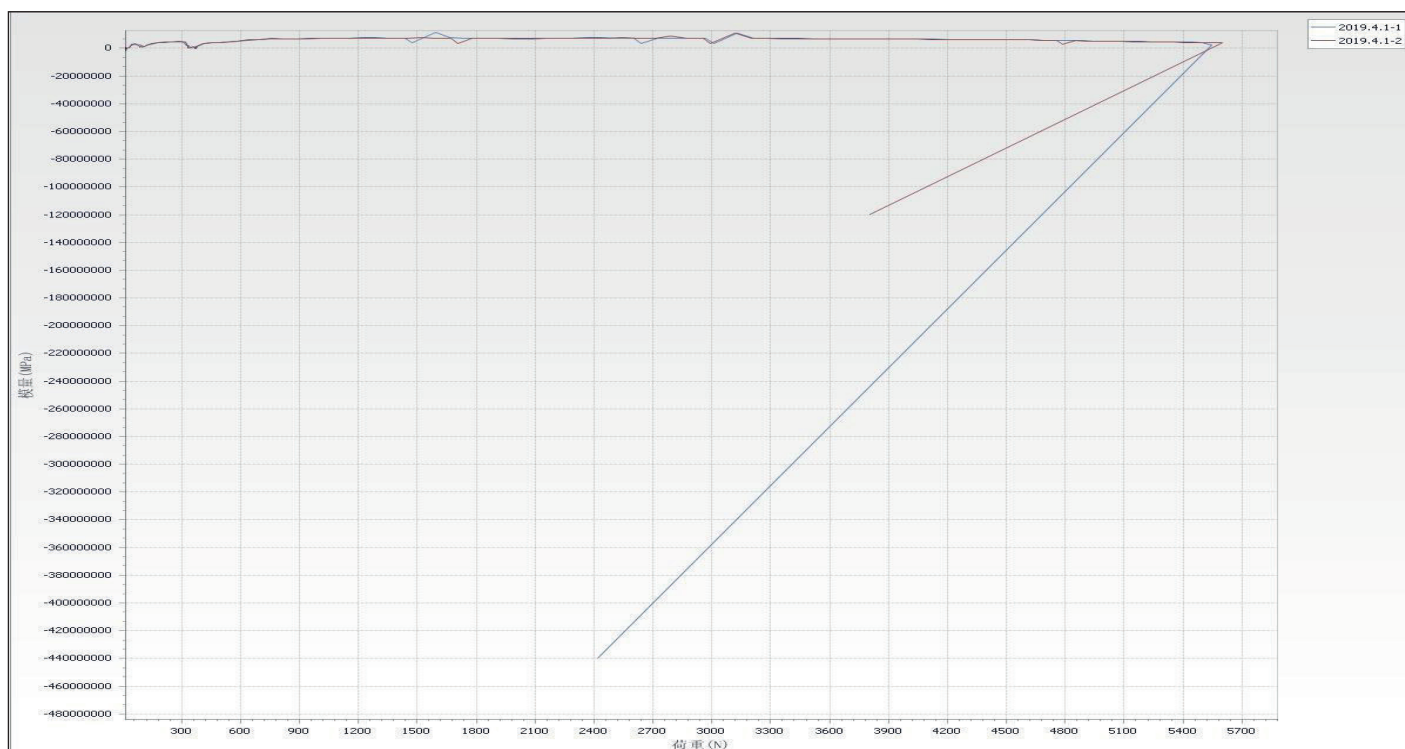
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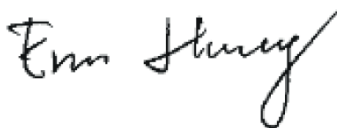
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Slip Resistance Test Report

The following sample(s) was/ were submitted and identified on behalf of the client as:

Sample Name : WPC DECKING
Sample Number : SHCCM150702425
Test Required : Slip resistance
Test Method : DIN 51130:2014-02
Product Specification : 88×23mm
Product or Lot No. : 15072301
Date of Receipt : Jul. 29, 2015
Test Period : Jul. 29, 2015 to Aug. 10, 2015
Test result(s) : For further details, please refer to the following page(s)
***** To be continued*****

Signed for SGS-CSTC Standards
Technical Services



Authorized signatory

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Slip Resistance Test Report

No. : SHCCM150702425

Date : Aug. 10, 2015

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Test Property	Test procedures/requirements	Rating/Result
SLIP RESISTANCE	<p>Prepare the test sample as the size of 100cm x 50cm, cleaning the surface before test.</p> <p>The temperature of the lab, shoes, lubricant and the decorative panels should be kept at (23 ± 5) °C</p> <p>Before test, apply a layer of lubricant on the surface of the decorative panels evenly with a brush, the density should be (200 ± 20) ml every square meter, the outer bottom of the shoes should also be covered with lubricant.</p>  <p>Illustration 1—bottom of the shoes for inspect</p> <p>Inspector should maintain upright posture and walk forward and backward on the decorative panels while watch below, stride width should reach half the length of the shoes. Start from the horizontality; Increase the angle of inclination of the panels at a angular velocity of about one degree every second. Inspector will linger at critical areas many times to determine the reliable walk limit inclination angle he or she can reached, repeat the above procedure three times and start from the horizontality every time. Before the second and the third time, reapply the lubricant on the surface as above with the brush.</p>	<p>$\alpha: 25.1^\circ$</p> <p>Rating: R11</p>

***** To be continued*****



Slip Resistance Test Report

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Test Property	Test procedures/requirements	Rating/Result																									
	<p>I.Calibration of the test person</p> <p>1. Each inspectors should walk on the every standard flooring for three times, then calculate the average angle respectively:</p> <p>① α_{KST-Ij} ②$\alpha_{KST-IIj}$ ③$\alpha_{KST-IIIAj}$</p> <p>2. The difference value will be calculated: $\Delta\alpha_{ST-Ij}$, $\Delta\alpha_{ST-IIj}$, $\Delta\alpha_{ST- IIIAj}$. If the difference value is out of range of CrD95, the inspector should be eliminated</p> <p>See below table 1</p> <p style="text-align: center;">Table 1</p> <table><tr><th colspan="3">Standard flooring</th></tr><tr><th>i</th><th>$\alpha_{S,i}$</th><th>CrD95</th></tr><tr><td>St-I</td><td>8.7°</td><td>3.0°</td></tr><tr><td>St-II</td><td>17.3°</td><td>3.0°</td></tr><tr><td>St-IIIA</td><td>27.3°</td><td>3.0°</td></tr></table> <p>II . Test for sample</p> <p>Two qualified inspector selected as above walk on the sample panels for three times respectively, then calculate the mean value $\alpha_{0,1}$ and $\alpha_{0,2}$, then calculate the corrected value Dj according to below table 2.</p> <p style="text-align: center;">Table 2</p> <table><tr><th>Case</th><th>Corrected value Dj</th></tr><tr><td>$\alpha_{0,1} < \alpha_{KST-I,1}$</td><td>$D_1 = \Delta\alpha_{ST-I,1} \cdot \frac{1}{\sqrt{2}}$</td></tr><tr><td>$\alpha_{KST-I,1} \leq \alpha_{0,1} < \alpha_{KST-II,1}$</td><td>$D_1 = \left[\Delta\alpha_{ST-I,1} + (\Delta\alpha_{ST-II,1} - \Delta\alpha_{ST-I,1}) \cdot \frac{\alpha_{0,1} - \alpha_{KST-I,1}}{\alpha_{KST-II,1} - \alpha_{KST-I,1}} \right] \cdot \frac{1}{\sqrt{2}}$</td></tr><tr><td>$\alpha_{KST-II,1} \leq \alpha_{0,1} < \alpha_{KST-IIIA,1}$</td><td>$D_1 = \left[\Delta\alpha_{ST-II,1} + (\Delta\alpha_{ST-IIIA,1} - \Delta\alpha_{ST-II,1}) \cdot \frac{\alpha_{0,1} - \alpha_{KST-II,1}}{\alpha_{KST-IIIA,1} - \alpha_{KST-II,1}} \right] \cdot \frac{1}{\sqrt{2}}$</td></tr><tr><td>$\alpha_{KST-IIIA,1} \leq \alpha_{0,1}$</td><td>$D_1 = \Delta\alpha_{ST-IIIA,1} \cdot \frac{1}{\sqrt{2}}$</td></tr></table> <p>The result for inspector j : $\alpha_j=\alpha_{0,j}+D_j$</p> <p>The final result for the two inspectors: $\alpha= (\alpha_1+\alpha_2) /2$,on this basis and according to table 3,give a final rating of slip resistance.</p>	Standard flooring			i	$\alpha_{S,i}$	CrD95	St-I	8.7°	3.0°	St-II	17.3°	3.0°	St-IIIA	27.3°	3.0°	Case	Corrected value Dj	$\alpha_{0,1} < \alpha_{KST-I,1}$	$D_1 = \Delta\alpha_{ST-I,1} \cdot \frac{1}{\sqrt{2}}$	$\alpha_{KST-I,1} \leq \alpha_{0,1} < \alpha_{KST-II,1}$	$D_1 = \left[\Delta\alpha_{ST-I,1} + (\Delta\alpha_{ST-II,1} - \Delta\alpha_{ST-I,1}) \cdot \frac{\alpha_{0,1} - \alpha_{KST-I,1}}{\alpha_{KST-II,1} - \alpha_{KST-I,1}} \right] \cdot \frac{1}{\sqrt{2}}$	$\alpha_{KST-II,1} \leq \alpha_{0,1} < \alpha_{KST-IIIA,1}$	$D_1 = \left[\Delta\alpha_{ST-II,1} + (\Delta\alpha_{ST-IIIA,1} - \Delta\alpha_{ST-II,1}) \cdot \frac{\alpha_{0,1} - \alpha_{KST-II,1}}{\alpha_{KST-IIIA,1} - \alpha_{KST-II,1}} \right] \cdot \frac{1}{\sqrt{2}}$	$\alpha_{KST-IIIA,1} \leq \alpha_{0,1}$	$D_1 = \Delta\alpha_{ST-IIIA,1} \cdot \frac{1}{\sqrt{2}}$	
Standard flooring																											
i	$\alpha_{S,i}$	CrD95																									
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Case	Corrected value Dj																										
$\alpha_{0,1} < \alpha_{KST-I,1}$	$D_1 = \Delta\alpha_{ST-I,1} \cdot \frac{1}{\sqrt{2}}$																										
$\alpha_{KST-I,1} \leq \alpha_{0,1} < \alpha_{KST-II,1}$	$D_1 = \left[\Delta\alpha_{ST-I,1} + (\Delta\alpha_{ST-II,1} - \Delta\alpha_{ST-I,1}) \cdot \frac{\alpha_{0,1} - \alpha_{KST-I,1}}{\alpha_{KST-II,1} - \alpha_{KST-I,1}} \right] \cdot \frac{1}{\sqrt{2}}$																										
$\alpha_{KST-II,1} \leq \alpha_{0,1} < \alpha_{KST-IIIA,1}$	$D_1 = \left[\Delta\alpha_{ST-II,1} + (\Delta\alpha_{ST-IIIA,1} - \Delta\alpha_{ST-II,1}) \cdot \frac{\alpha_{0,1} - \alpha_{KST-II,1}}{\alpha_{KST-IIIA,1} - \alpha_{KST-II,1}} \right] \cdot \frac{1}{\sqrt{2}}$																										
$\alpha_{KST-IIIA,1} \leq \alpha_{0,1}$	$D_1 = \Delta\alpha_{ST-IIIA,1} \cdot \frac{1}{\sqrt{2}}$																										

***** To be continued *****

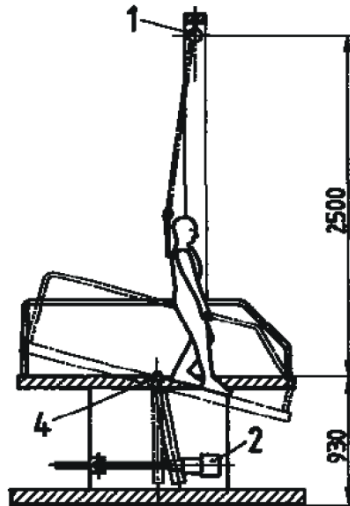


Slip Resistance Test Report

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Test Property	Test procedures/requirements	Rating/Result												
	<p>Table3 –The relation between the corrected overall angle and the rating of the slip resistance</p> <table><tr><th>α</th><th>Rating</th></tr><tr><td>$6^{\circ} \sim 10^{\circ}$</td><td>R 9</td></tr><tr><td>$10^{\circ} \sim 19^{\circ}$</td><td>R 10</td></tr><tr><td>$19^{\circ} \sim 27^{\circ}$</td><td>R 11</td></tr><tr><td>$27^{\circ} \sim 35^{\circ}$</td><td>R 12</td></tr><tr><td>$>35^{\circ}$</td><td>R 13</td></tr></table> <p>Illustration 2 inspect device with safety mechanism (inclined plane)</p> 	α	Rating	$6^{\circ} \sim 10^{\circ}$	R 9	$10^{\circ} \sim 19^{\circ}$	R 10	$19^{\circ} \sim 27^{\circ}$	R 11	$27^{\circ} \sim 35^{\circ}$	R 12	$>35^{\circ}$	R 13	
α	Rating													
$6^{\circ} \sim 10^{\circ}$	R 9													
$10^{\circ} \sim 19^{\circ}$	R 10													
$19^{\circ} \sim 27^{\circ}$	R 11													
$27^{\circ} \sim 35^{\circ}$	R 12													
$>35^{\circ}$	R 13													

Statement: Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

***** To be continued*****



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Sample Photos:

Test sample (test surface)



Standard flooring

Test sample (back surface)



Test shoes



***** End of report *****

