



Test Report

Test Product **Hollow Post**

Test Standard **ASTM D6109**

Applicant **Wild Hog Products**

Test Category **Entrusted Test**



PRECAUTIONS

THE USE OF STIX TIMBER AND LINX SIMPLIFIED PERGOLA SYSTEM IS NOT RECOMMEND FOR USE IN LIVE LOADS. AS WITH ALL CONSTRUCTION PROJECTS PLEASE CONTACT YOUR LOCAL BUILDING DEPARTMENT PRIOR TO THE START OF YOUR PROJECT TO ENSURE LOCAL CODE COMPLIANCE AND THE SAFETY OF YOUR BUILD.





1. Sample Description

Hollow Post samples for entrusted test in this report were shipped to test laboratory by the applicant on Sep 13th, 2021, packed well and kept in good conditions. Test members are made of fir with WBP glue. The dimension specification and quantity of samples obtained are shown in the Table below:

Test Item	Specimen Dimension Specification (in.)					Sample Size
	Specification	B ¹	H	b	h	
Bending Strength Modulus of Elasticity	6"×12'	5.43	5.43	2.68	2.63	1
	6"×10'	5.41	5.45	2.61	2.78	1
	6"×8'	5.47	5.47	2.43	2.63	1
	4"×10'	3.54	3.47	1.54	1.84	1
	4"×8'	3.54	3.46	1.69	1.64	1

Notes:

1. For symbol description, please reference Appendix II of test report.
2. Sample information are provided by applicant.
3. Sample size are specified by applicant.

2. Referenced Standards

- ◆ ASTM D6109: Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastic Lumber and Related Products

Unless specified, all test methods in this report are latest version for testing.

3. Test Environment

The relative humidity and temperature of test environment are (65 ± 5)% and (23±1)°C, respectively.



4. Test Results

Specification	Test Item	Units	Result ⁴
6"×12'	Moment of inertia	in. ⁴	68.50
	Section factor	in. ³	25.22
	Bending Strength	psi	5061
	Modulus of Elasticity	psi	1.07×10 ⁶
6"×10'	Moment of inertia	in. ⁴	68.40
	Section factor	in. ³	25.10
	Bending Strength	psi	5799
	Modulus of Elasticity	psi	1.22×10 ⁶
6"×8'	Moment of inertia	in. ⁴	71.03
	Section factor	in. ³	25.96
	Bending Strength	psi	5204
	Modulus of Elasticity	psi	1.09×10 ⁶
4"×10'	Moment of inertia	in. ⁴	11.57
	Section factor	in. ³	6.66
	Bending Strength	psi	6114
	Modulus of Elasticity	psi	1.03×10 ⁶
4"×8'	Moment of inertia	in. ⁴	11.57
	Section factor	in. ³	6.68
	Bending Strength	psi	7135
	Modulus of Elasticity	psi	1.26×10 ⁶

Notes:

4. For detailed test data, please reference Appendix I of test report.

Reporter: *Peng ting ting*

Verifier: *Ji lu*

Approver: *[Signature]*



Appendix I - Test Data

1. Bending Strength and Modulus Of Elasticity







Specification	Span (in.)		10% Ultimate Load (lb)	Deflection Under 10% Ultimate Load (in.)	40% Ultimate Load (lb)	Deflection Under 40% Ultimate Load (in.)	P/Δ (lb/in.)
6"×12'	130		589.77	0.314	2357.49	1.254	1879.8
6"×10'	106		824.68	0.209	3295.59	0.835	3948.1
6"×8'	82		987.43	0.125	3954.91	0.500	7912.3
4"×10'	106		231.11	0.410	926.78	1.644	563.9
4"×8'	82		348.88	0.234	1395.2	0.936	1489.1



Appendix II - Sample Photos

<p>Shape of cross-section</p>	
<p>Bending Test Specimen-6"×12'</p>	<p>Shape of Failure-6"×12'</p>
<p>Bending Test Specimen-6"×10'</p>	<p>Shape of Failure-6"×10'</p>



	
<p>Bending Test Specimen-6"×8'</p>	<p>Shape of Failure-6"×8'</p>
	
<p>Bending Test Specimen-4"×10'</p>	<p>Shape of Failure-4"×10'</p>
	
<p>Bending Test Specimen-4"×8'</p>	<p>Shape of Failure-4"×8'</p>

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