

Test Report

No.: SHHL1703012070BM

Date: MAR. 30, 2017

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SKLEJBUD

ENERGETYKÓW 16 26-615 RADOM

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

Sample Description : POLGLOS UNITY
Country of Origin : POLAND
Sample Receiving Date : MAR. 20, 2017
Testing Period : MAR. 20, 2017 TO MAR. 29, 2017
Test Performed : SELECTED TEST(S) AS REQUESTED BY APPLICANT
Test Requested : 1. WOOD-BASED PANELS - DETERMINATION OF MODULUS
OF ELASTICITY IN BENDING AND OF BENDING
STRENGTH (EN 310:1993)
2. SURFACE SOUNDNESS (EN 311:2002)
Test Result(s) : FOR FURTHER DETAILS, PLEASE REFER TO THE
FOLLOWING PAGE(S)
Conclusion : THE TEST DATA WERE PROVIDED TO CLIENT FOR THEIR
OWN ANALYSIS.

Signed for and on behalf of
SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.



Yomoro Gu
Authorized Signatory



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Test Conducted:

1. **Wood-based panels - Determination of modulus of elasticity in bending and of bending strength (EN 310:1993)**
2. **Surface soundness (EN 311:2002)**

Test Property	Test principles/requirements	Rating/ Result
Bending strength and modulus of elasticity in bending	<p>The width of the test pieces shall be (50±1) mm. The length shall be 20 times the nominal thickness plus 50 mm, with a maximum length of 1050 mm and a minimum length of 150mm. Measure the width and thickness of each test piece. The load shall be applied at a constant rate of cross-head movement throughout the test according to test procedure, and measure the deflection in the middle of the test piece. Record the maximum load. The modulus of elasticity E_m (in N/mm²), of each test piece, is calculated from the formula:</p> $E_m = \frac{l_1^3(F_2 - F_1)}{4bt^3(a_2 - a_1)}$ <p>Where l_1 is the distance between the centers of the supports, in millimeters b is the width of the test piece, in millimeters t is the thickness of the test piece, in millimeters F_2, F_1 is the increment of load on the straight line portion of the load-deflection curve, in N. F_1 shall be approximately 10% and F_2 shall be approximately 40% of the maximum load a_2, a_1 is the increment of deflection at the mid-length of the test piece</p> <p>The bending strength f_m (in N/mm²), of each test piece, is calculated from the formula:</p> $f_m = \frac{3 F_{max} l_1}{2 bt^2}$ <p>Where F_{max} is the maximum load, in newtons l_1, b and t are in millimeters. The bending strength and modulus of elasticity of each test piece shall be expressed to three significant figures</p>	<p>Bending strength: Length direction: 15.02 N/mm² Width direction: 12.88 N/mm²</p> <p>Modulus of elasticity in bending: Length direction: 3646 N/mm² Width direction: 3056 N/mm²</p>



Test Property	Test principles/requirements	Rating/ Result
Surface soundness	<ol style="list-style-type: none"> Carry out the sampling and cutting in accordance with EN 326-1. 8 test pieces, each 50mm x 50mm, shall be taken from each board to be tested. A circular groove shall be cut into the surface of the test pieces by means of a milling tool. The groove shall have an inside diameter of 35.7 ± 0.2 mm (enclosing an area of 1000 mm^2) and a depth of (0.3 ± 0.1) mm. All test pieces shall be conditioned to constant mass in an atmosphere with a percentage relative humidity of (65 ± 5) % and a temperature of (20 ± 2) °C prior to the bonding of the steel mushroom-shaped pad (5.2) to the surface. Constant mass is considered to be reached when the results of two successive weighing operations, carried out at an interval of 24 h, do not differ by more than 0.1 % of the mass of the test piece. After the adhesive has cooled and hardened, the test piece shall be placed in the gimmel. A force shall be applied at a constant speed so that failure occurs in (60 ± 30)s, Record the force at failure. The results from test pieces that fail within the glue-line of the pad shall be rejected, unless the specification value is lower than the test results. The surface soundness SS for each test piece in Newtons per square millimetre shall be calculated from the equation. Express the result to the nearest 0.01 N/mm^2 $SS = F/A$ where F is the maximum force in Newtons; A is the surface area 1000 mm^2; 	Average result: 1.03 N/mm^2



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Test Report

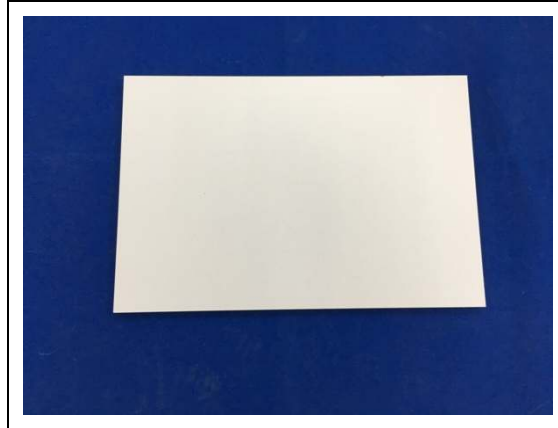
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Sample Photo:

Test sample



Transverse of the sample



SGS authenticate the photo on original report only

End of Report



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