

**Morgarn Lab.**

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# **TEST REPORT**

**Construction products Regulation (EU) No 305/2011**

**Report No.:TCF190807021CPR**

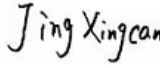

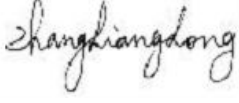
**Product: Multilayer Engineered Wood  
Flooring**

**Applicant:**

**JESONWOOD FOREST PRODUCTS (ZJ) CO., LTD**

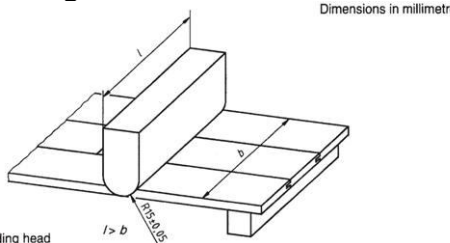


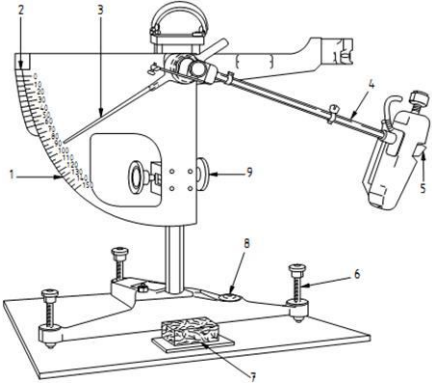
**Unit 144, Seaway Parade PORT TALBOT SA14 6BR ,UK**

<p><b>ASSESSMENT REPORT</b></p> <p><b>per</b></p> <p><b>EN 14342:2013</b></p> <p><b>Wood flooring and parquet — Characteristics, evaluation of conformity and marking</b></p>
<p>Report</p> <p>Reference No. .... : No:TCF190807021CPR</p> <p>Tested by( signature).....: Jing Xing Can </p> <p>Reviewed by( signature).....: Huang Jian </p> <p>Approved by( signature).....: zhang Liang Dong </p> <p>Date of issue ..... : 2019-08-02</p> <p>Number of pages (Report) ..... : 7</p>
<p>Client</p> <p>Name .....: JESONWOOD FOREST PRODUCTS (ZJ) CO., LTD</p> <p>Address ..... : No.598 Gaoxin Road, Wuxing Area,Huzhou, Zhejiang, China</p>
<p>Testing laboratory Name. ....: Morgarn Lab.</p> <p>Address .....: Unit 144, Seaway Parade PORT TALBOT SA14 6BR ,UK</p>
<p>Test specification</p> <p>Standard ..... : EN 14342: 2013</p> <p>Test procedure ..... : CE-CPR</p> <p>Non-standard test method ..... : N.A.</p>
<p>Test item description:</p> <p>Manufacturer..... : JESONWOOD FOREST PRODUCTS (ZJ) CO., LTD(Jiangsu)</p> <p>Factory..... : JESONWOOD FOREST PRODUCTS (ZJ) CO., LTD(Jiangsu)</p> <p>Trademark ..... : N/A</p> <p>Model/Type reference ..... : 9mm</p>
<p><b>General product information:</b></p> <p>The product is Multilayer Engineered Wood Flooring .</p>

<p><b>Test item particulars:</b></p> <p>Description of equipment function.....: Multilayer Engineered Wood Flooring</p> <p>Overall size of the equipment (L x W x H).....: N/A</p> <p>Thickness of the equipment (g).....: 9mm</p> <p>Accessories and detachable parts included in the evaluation.....: —</p> <p>Option.....: —</p>
<p><b>Test case verdicts:</b></p> <p>Test case does not apply to the test object.....: N(N/A)</p> <p>Test object does meet the requirement.....: P(Pass)</p> <p>Test object does not meet the requirement.....: F(Fail)</p>
<p><b>Testing:</b></p> <p>Date of receipt of test item.....: 2019-07-29</p> <p>Date (s) of performance of tests.....: 2019-08-02</p>
<p><b>General Remarks:</b></p> <p>This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory.</p> <p>The test results presented in this report relate only to the item(s) tested.</p> <p>"(see remark #)" refers to a remark appended to the report.</p> <p>"(see Annex #)" refers to an annex appended to the report.</p>
<p><b>Summary of testing:</b></p> <p>Ambient temperature :20°C ~24 , humidity:5 °C 5%~65%</p> <p>Complete test was conducted on 9mm.</p> <p>The thickness of the product is from 9mm to 21mm.</p>
<p><b>Summary of Test Results (Information/Comments):</b></p> <p>According to the applicant’s requirements, the product was tested and evaluated by this standard.</p> <p>The product has been evaluated and found in compliance with the essential health and safety requirements.</p>

Test Property	Test Method	Test Principle / Requirements	Test Result																																																																													
Dimensional characteristics	EN 14342:2013 Clause 4.1	<p>For moisture content, the equilibrium of wood and parquet flooring will depend on the surrounding temperature and relative humidity of the site before installation and on the service conditions.</p> <p>Dimensional characteristics of a wood flooring product and parquet shall be in line with those defined in the relevant specific product standard.</p>	<p>Pass.</p> <p>The moisture content is 4.6%.</p>																																																																													
Reaction to fire	EN 14342:2013 Clause 4.2 &EN13501-1	<p>Products meeting the definition given in Table 1 are considered to be classified without further testing in the class(es) shown. Other products shall be tested and classified (as flooring) in accordance with EN 13501-1 with, in addition to any specific provisions on mounting and fixing given in the test standards, the products being mounted and fixed in a manner representative of their intended end use.</p> <p style="text-align: center;"><b>Table 1 —Classes of reaction to fire performance for wood flooring</b></p> <table border="1" data-bbox="624 1016 1166 1637"> <thead> <tr> <th>Product <sup>a, g</sup></th> <th>Product detail <sup>d</sup></th> <th>Minimum mean density <sup>e</sup> (kg/m<sup>3</sup>)</th> <th>Minimum overall thickness (mm)</th> <th>End-use condition</th> <th>Class <sup>f</sup> for floorings</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Wood flooring and parquet</td> <td>Solid flooring of oak or beech with surface coating</td> <td>Beech: 680 Oak: 650</td> <td>8</td> <td>Glued to substrate <sup>1</sup></td> <td rowspan="2">C<sub>s</sub> - s1</td> </tr> <tr> <td>Solid flooring of oak, beech or spruce and with surface coating</td> <td>Beech: 680 Oak: 650 Spruce: 450</td> <td>20</td> <td>With or without air gap underneath</td> </tr> <tr> <td rowspan="2">Solid wood flooring with surface coating and not specified above</td> <td rowspan="2">390</td> <td>8</td> <td>Without air gap underneath</td> <td rowspan="2">D<sub>s</sub> - 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s1</td> </tr> </tbody> </table> <p><sup>a</sup> Mounted in accordance with EN ISO 9239-3 on a substrate of at least Class D - s2, d0 and with minimum density of 400 kg/m<sup>3</sup> or with an air gap underneath.</p> <p><sup>b</sup> An interlayer of at least Class E and with maximum thickness 3 mm may be included in applications without an air gap, for parquet products with 14 mm thickness or more and for veneered floor coverings.</p> <p><sup>c</sup> Class as provided for in Commission Decision 2000/147/EC Annex Table 2.</p>	Product <sup>a, g</sup>	Product detail <sup>d</sup>	Minimum mean density <sup>e</sup> (kg/m <sup>3</sup> )	Minimum overall thickness (mm)	End-use condition	Class <sup>f</sup> for floorings	Wood flooring and parquet	Solid flooring of oak or beech with surface coating	Beech: 680 Oak: 650	8	Glued to substrate <sup>1</sup>	C <sub>s</sub> - s1	Solid flooring of oak, beech or spruce and with surface coating	Beech: 680 Oak: 650 Spruce: 450	20	With or without air gap underneath	Solid wood flooring with surface coating and not specified above	390	8	Without air gap underneath	D <sub>s</sub> - s1	20	With or without air gap underneath	Solid wood flooring and parquet not specified above <sup>1</sup>	400	6	All	E <sub>s</sub>	Wood parquet	Multilayer parquet with a top layer of oak of at least 5 mm thickness and with surface coating	650 (top layer)	10	Glued to substrate <sup>1</sup>	C <sub>s</sub> - s1	14 <sup>b</sup>	With or without air gap underneath	Multilayer parquet with surface coating and not specified above	500	8	Glued to substrate	D <sub>s</sub> - s1	10	Without air gap underneath	14 <sup>b</sup>	With or without air gap underneath	Solid wood (one layer) parquet of walnut	650	8	Glued to substrate <sup>j</sup>	D <sub>s</sub> -s1	Solid (one layer) parquet of oak, maple and ash <sup>1</sup>	Ash:650 Maple: 650 Oak: 720	8	Glued to substrate <sup>j</sup>	D <sub>s</sub> -s1	Multilayer parquet with oak top layer, at least 3.5 mm <sup>1</sup>	550	15 <sup>b</sup>	Without air gap underneath	D <sub>s</sub> -s1	Wood flooring	Solid wood flooring of pine and spruce <sup>1</sup>	Pine: 480 Spruce: 400	14	Without air gap underneath	D <sub>s</sub> -s1	Solid flooring of beech, oak, pine or spruce <sup>1</sup>	Beech: 700 Oak: 700 Pine: 430 Spruce: 400	20	With or without air gap underneath	D <sub>s</sub> -s1	Veneered floor covering	Veneered floor covering with surface coating	800	6 <sup>b</sup>	Without air gap underneath	D <sub>s</sub> - s1	<p>Pass.</p> <p>The anti-fire level is D<sub>n</sub>-s1.</p>
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Release of formaldehyde	EN 14342:2013 Clause 4.3.1 &EN717-2	<p>Where formaldehyde-containing materials, particularly aminoplastic resins, have been added to the product as a part of the production process, the product shall be tested and classified into one of two classes: E1 or E2.</p> <p>E1 Release ≤ 3.5 mg/m<sup>2</sup>h E2 Release &gt; 3.5 mg /m<sup>2</sup> h to ≤ 8 mg /m<sup>2</sup> h</p>	<p>Pass.</p> <p>Release:1.2mg/m<sup>2</sup>h</p> <p>The product is E1 Class.</p>																																																																													

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Emission of pentachlorophenol	EN 14342:2013 Clause 4.3.2	Parquet and wood flooring normally contains less than 5ppm of pentachlorophenol (PCP). If the product contains raw materials that include PCP (may concern soft wood treated against blue stain), then the product shall be tested according to methods valid in the country of use of the product. In case the value of 5ppm is exceeded, the indication "PCP > 5ppm" shall be added to the marking.	Pass. Emission of pentachlorophenol is less than 5ppm.
Release of other dangerous substances	EN 14342:2013 Clause 4.4	National regulations on dangerous substances may require verification and declaration on release, and sometimes content, of other dangerous substances, in addition to those dealt with in other clauses, when construction products covered by this standard are placed on those markets. In the absence of European harmonised test methods, verification and declaration on release/content should be done taking into account national provisions in the place of use.	Pass. Not release the dangerous substance.
Breaking strength	EN 14342:2013 Clause 4.5& EN 1533	If breaking strength is required, it shall be tested for the installation required according to EN 1533 depending on the risk, if any. The result shall be expressed in terms of maximum load. This requirement does not apply to veneer floor coverings. 	Pass. The breaking strength is 132MPa.
Slipperiness	EN 14342:2013 Clause 4.6 & EN1339	Where the manufacturer wishes to declare a slipperiness value (e.g. where subject to regulatory requirements), the slipperiness shall be determined in accordance with the pendulum test described in EN 1339:2003, Annex I.	Pass. The USRV is 66.

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		 <p>When the wide slider is used over a swept length of 126 mm, calculate the pendulum value of each specimen as the mean of the two recorded mean values measured in opposite directions to the nearest 1 unit on the C scale. The USRV is the mean pendulum value obtained on the 5 specimens.</p>																											
thermal conductivity	EN 14342:2013 Clause 4.7 &EN12664	<p>The thermal conductivity shall be determined only for uses subject to thermal insulation requirements. It shall either be determined according to EN 12664 or given by using tabulated values related to density as shown in Table 2, taken from EN 12524.</p> <p>For multi-layer flooring take the summation of the values of thermal resistance for each layer.</p> <p>The thermal resistance R (m<sup>2</sup> K/W) of Multilayer Engineered Wood Flooring is given by the formula:</p> $R = \frac{t}{\lambda}$ <p>where t is the thickness of the wood flooring in m and λ is the thermal conductivity in W/m K.</p> <p><small>Table 2 — Thermal conductivity values for solid wood, some of wood-based panels used for the wood flooring products and parquets</small></p> <table border="1" data-bbox="639 1641 1163 1890"> <thead> <tr> <th>Solid wood and some wood-based panels</th> <th>Mean density<sup>a</sup> ρ at a moisture content of 12 % (kg/m<sup>3</sup>)</th> <th>Thermal conductivity<sup>b</sup> λ (W/(m K)) (design value)</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Solid wood and plywood</td> <td>300</td> <td>0,09</td> </tr> <tr> <td>500</td> <td>0,13</td> </tr> <tr> <td>700</td> <td>0,17</td> </tr> <tr> <td>1 000</td> <td>0,24</td> </tr> <tr> <td rowspan="3">Particleboard</td> <td>300</td> <td>0,10</td> </tr> <tr> <td>600</td> <td>0,14</td> </tr> <tr> <td>900</td> <td>0,18</td> </tr> <tr> <td rowspan="3">Fibreboard</td> <td>400</td> <td>0,10</td> </tr> <tr> <td>600</td> <td>0,14</td> </tr> <tr> <td>800</td> <td>0,18</td> </tr> </tbody> </table>	Solid wood and some wood-based panels	Mean density <sup>a</sup> ρ at a moisture content of 12 % (kg/m <sup>3</sup> )	Thermal conductivity <sup>b</sup> λ (W/(m K)) (design value)	Solid wood and plywood	300	0,09	500	0,13	700	0,17	1 000	0,24	Particleboard	300	0,10	600	0,14	900	0,18	Fibreboard	400	0,10	600	0,14	800	0,18	Pass. The thermal conductivity is 0.21 W/(m·K).
Solid wood and some wood-based panels	Mean density <sup>a</sup> ρ at a moisture content of 12 % (kg/m <sup>3</sup> )	Thermal conductivity <sup>b</sup> λ (W/(m K)) (design value)																											
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Biological durability	EN 14342:2013 Clause 4.8	<p>For the natural durability of wood, see EN 350-2.</p> <p>For the penetration and retention combinations available, see EN 351-1.</p> <p>In this environment the moisture content</p>	Pass. The product is Class 1. very durable.																										

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		<p>of solid wood is such that the risk of attack by surface moulds or by staining or wood-destroying fungi is insignificant (that is the wood shall have a moisture content of maximum 20 %) in any part for practically the whole of its service life). However, attack by wood-boring insects, including termites, is possible although the frequency and importance of the insect risk depends on the geographical region).</p> <p>Wood preservatives used shall comply with the performance requirements given in EN 599-2 appropriate for the use class. The minimum penetration shall be declared in terms of penetration classes listed in EN 335.</p> <p>The mean retention in the analytical zone (see EN 351-1) shall be equal to or greater than the retention requirement for the preservative used in the declared use class.</p>	

