



Product Technical Statement
Laminated Strand Lumber
SolidGuard LSL



<p>Product Manufacturer</p>	<p>Louisiana-Pacific Corporation (LP) 414 Union Street, Suite 2000 Nashville Tennessee 37219 (www.lpcorp.com)</p> <p>The product is manufactured at LP's Houlton, Maine, USA, manufacturing facility.</p> <p>LP is a global supplier of EWP's from various processing facilities throughout the United States of America, Canada and Chile.</p>
<p>Product Description</p>	<p>SolidGuard LSL is a reconstituted wood product, and part of the wider family of engineered wood products (EWP's). It is manufactured from a mix of sustainably harvested aspen and maple hardwood strands blended with an isocyanate adhesive and formed through a steam injection press. The resulting timber boards have consistent properties and avoid the typical sawn timber behaviour of twisting and warping, and defects such as knots and splits are engineered out.</p> <p>The LP brand is SolidStart, and where timber is protected by the addition of Zinc Borate the brand is modified to "SolidGuard".</p> <p>"Zinc Borate" is added during the manufacturing process to resist termites and decay.</p> <p>The treated product is known as SolidGuard LSL.</p>
<p>Scope of Use</p>	<p>SolidGuard LSL can be used in buildings within the scope of NZS3604 in place of sawn timber as structural members such as floor joists, ceiling joists, rafters, purlins, lintels, floor beams/bearers and roof beams anywhere within the building where H1.2 hazard class applies.</p>
<p>Design</p>	<p>Design can be performed by Quick Design software (QDv2) for residential construction. QDv2 has been independently certified for use in New Zealand by a CPEng (see www.lumberworx.co.nz).</p> <p>SolidGuard LSL10 can be used as a direct substitute for SG10 sawn timber, and as a direct substitute for other engineered wood products with an E value up to 10.6 GPa of the same section size.</p>
<p>Limitations of Use</p>	<p>SolidGuard LSL cannot be used outside of the scope of NZS3604 or in weather exposed situations. SolidGuard LSL is suitable for H1.2 hazard class only.</p>
<p>Installation</p>	<p>Installation and fixings shall be in accordance with NZS3604 and the Lumberworx Technical Guide for Structural Engineered Lumber (SCL). This can be downloaded from the Lumberworx web site www.lumberworx.co.nz</p>



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Quality Assurance

The Lumberworx quality management system (QMS) is ISO 10005 compliant. The QMS requires Lumberworx to import only those engineered wood products that have relevant 3rd party international accreditation.

SolidGuard LSL has been certified for use in USA and Canada by APA-The Engineered Wood Association (Reports PR-L280 and PR-L280C) and in the USA by the ICC Evaluation Service (Report ESR-2403).

LP's quality control program at Houlton Maine is subject to inspections by APA-The Engineered Wood Association and ICC-ES.

LP holds a Certificate of Constancy of Performance for Product (069-CPR-0844) issued by CTSB for compliance with EU regulation No. 305/2011 for the marketing of construction materials for LSL.

(See www.lumberworx.co.nz for downloads)

New Zealand Building Code

SolidGuard LSL if installed in accordance with NZS3604 and the Lumberworx Technical Guide for Structural Engineered Lumber (SCL) will meet the following performance clauses of the New Zealand Building Code B1 (Structure) B1.3.1, B1.3.2, B1.3.3 (a, b, c, f, g, h & q).

SolidGuard LSL will meet the requirements of Clause B2 of the New Zealand Building Code (Durability) when installed (also see H1.2 below).

The requirements of Clause F2 – Hazardous Building Materials – will be met and there will be no health hazard to occupants.

Verification

Lumberworx Ltd has applied for and been granted a CodeMark by Asurequality for the use of SolidGuard LSL in New Zealand construction (Number 098-XYZ-!@#). This can be down loaded at www.lumberworx.co.nz

H1.2 Hazard Class

SolidGuard LSL is treated with zinc-borate (ZB) during manufacture for protection against decay and termites.

Testing at Veritec/SCION has confirmed this treatment will satisfy H1.2 hazard class requirements which has been accepted by Asurequality when granting the CodeMark.

Product Support

Lumberworx has a range of information and construction details on its website at www.lumberworx.co.nz.

Assistance is also available from the Lumberworx technical team for installers (builders), designers (engineers and architects) and BCA's (and officials). Call free on 0508 IBEAMS (0508 423267) for assistance.