



# Ecoply Product range changes

## INTRODUCTION

As a part of continual development processes across the Carter Holt Harvey Plywood Ltd (CHH Ply) range, CHH Ply is in the process of changing the layup/construction for its 17, 19, 21 and 25mm Ecoply Structural F8/F8 plywood range. This includes changes to the layup/construction and changes to the stress grade in the perpendicular to the face grain direction.

This Technical Note details the changes and application of the 17, 19, 21 and 25mm F8/F5 plywood range including Section Properties, Product Identification and Specification and Installation requirements.

## SECTION PROPERTIES

Table 1. Section Properties of 17, 19, 21 and 25mm Ecoply Structural Plywood, denotes the section properties for the new layup/constructions, whilst Table 2. Nominal Strengths of 17, 19, 21 and 25mm F8/F5 Ecoply Structural Plywood includes the structural properties to suit. In all cases the new constructions demonstrate improved structural properties for the same nominal thickness in the parallel to the face grain direction, whilst exhibiting reduced structural properties in the perpendicular to the face grain direction. For Specific Engineering Design (SED) projects engineers will need to confirm the suitability of the plywood as appropriate for their design.

**Table 1: Section Properties of 17, 19, 21 and 25mm Ecoply® Structural Plywood**

			Section properties per mm width					
			Parallel to the face grain			Perpendicular to the face grain		
Nominal plywood thickness <sup>1</sup>	ID code <sup>2</sup>	Mass	Parallel Moment of Inertia	Section Modulus	Shear Constant <sup>3</sup>	Perpendicular Moment of Inertia	Section Modulus	Shear Constant <sup>3</sup>
(mm)		(kg/m <sup>2</sup> )	(mm <sup>4</sup> )	Z (mm <sup>3</sup> )	I/Q (mm <sup>2</sup> )	I (mm <sup>4</sup> )	Z (mm <sup>3</sup> )	I/Q (mm <sup>2</sup> )
17	17-30-5	9.2	323.7	36.8	13.7	128.5	20.9	8.2
19	19-38-5	10.6	456.3	47.7	14.8	132.5	20.9	8.2
21	21-38-6	11.6	626.2	58.6	15.4	191.7	25.4	10.9
25	25-38-7	13.5	991.6	78.6	17.9	349.6	36.8	13.7

1. Actual thickness of Ecoply sheets manufactured to thickness tolerances stated in AS/NZS 2269
2. Identification code: panel thickness – outermost veneer thickness x 10 – number of plies
3. I/Q values for rolling shear are for stress at the neutral axis calculated as in NZS 3603

**Table 2: Nominal Strengths of 17, 19, 21 and 25mm F8/F5 EcoPLY® Structural Plywood**

Nominal plywood thickness (mm)	ID code	Nominal Strengths (Limit States) per mm width					
		Parallel to the face grain (F8) <sup>4</sup>			Perpendicular to the face grain (F5) <sup>4</sup>		
		Bending Stiffness EI (1000 mm <sup>4</sup> )	Bending Moment f <sub>pb</sub> Z (Nmm)	Rolling Shear f <sub>prl</sub> /Q (N)	Bending Stiffness EI (1000 mm <sup>4</sup> )	Bending Moment f <sub>pb</sub> Z (Nmm)	Rolling Shear f <sub>prl</sub> /Q (N)
17	17-30-5	2945.5	919.9	23.3	886.6	292.0	12.2
19	19-38-5	4152.0	1191.3	25.1	914.0	292.0	12.2
21	21-38-6	5698.1	1464.6	26.2	1322.5	356.3	16.1
25	25-38-7	9023.3	1963.9	30.5	2412.0	515.1	20.2

4. Characteristic Structural Properties as for F Grades sourced from AS/NZS 2269.0:2012

**PRODUCT IDENTIFICATION**

In accordance with AS/NZS 2269, EcoPLY Structural Plywood sheets have the following information marked on the back (Untreated 21mm F8/F5 shown as an example):

<ul style="list-style-type: none"> <li>• Brand name: e.g. ECOPLY</li> <li>• Face grade, back grade: eg. CD</li> <li>• Intended application: e.g. STRUCTURAL</li> <li>• Nominal Thickness: eg. 21-</li> <li>• The values of second moment of area (moment of inertia) (I) and section modulus (Z) in the grain orientations to which the properties are declared: eg. 626.2, 58.6/191.7,25.4</li> <li>• Glue bond: e.g. A BOND</li> <li>• Formaldehyde emission class: E0 for A Bond EcoPLY</li> <li>• Australasian Standard: e.g. AS/NZS 2269</li> <li>• Treatment Standard (if applicable): e.g. AS/NZS 1604.3:2012</li> <li>• Date and time of manufacture: e.g. 01/12/15 12:23:45</li> <li>• Stress grade: e.g. F8/F5</li> <li>• The Engineered Wood Products Association of Australasia (EWPA) brand and mill number: e.g. 911 (Tokoroa mill)</li> </ul>	<p><b>EcoPLY CD Structural 21-(626.2, 58.6/191.7,25.4) A Bond E0 AS/NZS 2269.0:2012</b></p> <p><b>Operator /Date /Time F8/F5 EWPA 911</b></p>
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**SPECIFICATION & INSTALLATION**

The revised range of EcoPLY Structural Plywood can be specified and installed in accordance with the product specific usage requirements for nominal 17, 19, 21 and 25mm F8/F8 plywood as detailed in the ECOPLY® SPECIFICATION & INSTALLATION GUIDE as appropriate. Where the EcoPLY Structural Plywood products form part of a Specific Engineering Design (SED) solution refer to the structural engineer for further details.

## CONCLUSION

Ecoply Structural Plywood products manufactured in 17, 19, 21 and 25mm by CHH Ply will be manufactured with a Stress Grade F8/F5 and have alternate veneer layups, including 3.8mm thick veneer from April 2022, beginning with 17mm. The span tables and installation requirements detailed in the ECOPLY® SPECIFICATION & INSTALLATION GUIDE for F8/F8 Stress Grade remain applicable for these alternate veneer layups and changes to Stress Grade in the perpendicular direction.

For SED projects engineers will need to confirm the suitability of the plywood as appropriate for their design.

## REFERENCES

- ECOPLY® SPECIFICATION & INSTALLATION GUIDE
- AS/NZS 2269:0:2012 “Plywood Structural”
- NZS 3603:1993 “Timber Structures Standard”

## LIMITATIONS

The information contained in this document is current as at April 2022 and is based on data available to CHH Ply at the time of going to print. CHH Ply reserves the right to change the information contained in this document without prior notice. It is important that you visit [www.chhply.co.nz](http://www.chhply.co.nz) or call 0800 326 759 to confirm that you have the most up to date information available.

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