CANPLY
CANADIAN PLYWOOD ASSOCIATION

Comparative Product Data
18.5 mm

		Strength, Stiffness and Rigidity Capacities			
Engineering Property	Orientation	DFP	CSP	OSB Single-floor	OSB Sheathing
Bending (N•mm/mm)	0°	990	740	480	630
	90°	440	440	230	240
Axial Tension (N/mm)	0°	160	140	77	92
	90°	71	71	59	59
Axial Compression (N/mm)	0°	210	160	110	110
	90°	79	79	100	100
Shear-through -thickness (N/mm)	0°	43	46	59	60
	90°	43	46	59	60
Planar Shear-Bending (N/mm)	0°	9.2	9.7	7.8	7.8
	90°	5.4	5.4	4.5	4.4
Planar Shear-Shear in Plane (MPa)	0°	0.55	0.72	0.65	0.65
	90°	0.55	0.55	0.37	0.37
Bending Stiffness ($N•mm^2/mm$)	0°	4,600,000	3,400,000	2,800,000	3,800,000
	90°	1,300,000	1,300,000	720,000	820,000
Axial Stiffness - in tension or compression (N/mm)	0°	120,000	95,000	64,000	64,000
	90°	47,000	47,000	37,000	37,000
Shear Through Thickness Rigidity (N/mm)	0°	9800	8600	12,000	13,000
	90°	9800	8600	12,000	13,000
Bearing Strength (MPa)	normal to plane of panel	4.5	4.5	4.2	4.2
Panel Weight (kg)	-	28	25	34	34

Notes:

1) These values are from CSA O86 Engineering Design with Wood and apply to products certified to the following standards: DFP - CSA O121, CSP - CSA O151, OSB - CSA O325. Values have been provided for information purposes only. Complete design information may be found in CSA O86 or in CANPLY publication Plywood Design Fundamentals

2) DFP and CSP values are conservatively derived using the weakest species, worst-case construction and thinnest panel allowed within the respective manufacturing standard.

3)Values for OSB Single Floor are based on a span-rating of 1F24 and a thickness of 18.0 mm.

4)Values for OSB Sheathing are based on a span-rating of 2R48/2F24 and a thickness of 18.0 mm.

5)Orientation is relative to the face grain or the panel's long direction.

email:info@canply.org