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Moisture Control in Dimension Lumber

Lumber stamped S-Grn (surfaced green) is lumber which had a moisture content exceeding 19 percent (unseasoned) at time of manufacture.

Regardless of whether S-Grn or S-Dry at the time of manufacture, careless storage can lead to absorption of water which reverses the seasoning process and therefore increases the possibility that dimensional change will take place when the lumber has been placed into service which of course is not desirable.

Shrinkage Coefficients for Canadian Softwoods

Species	Direction of shrinkage	Shrinkage (% of green wood) to:			
		19%	15%	12%	6%
Cedar, Western Red	Radial	0.9	1.2	1.4	1.9
	Tangential	1.8	2.5	3.0	4.0
Douglas Fir, Coast	Radial	1.8	2.4	2.9	3.8
	Tangential	2.8	3.8	4.6	6.1
Douglas Fir, Interior	Radial	1.4	1.9	2.3	3.0
	Tangential	2.5	3.4	4.1	5.5
Hemlock, Western	Radial	1.5	2.1	2.5	3.4
	Tangential	2.9	3.9	4.7	6.2
Larch, Western	Radial	1.7	2.2	2.7	3.6
	Tangential	3.3	4.6	5.5	7.3
Pine, Eastern White	Radial	0.8	1.0	1.3	1.7
	Tangential	2.2	3.0	3.7	4.9
Pine, Red	Radial	1.4	1.9	2.3	3.0
	Tangential	2.6	3.6	4.3	5.8
Pine, Western White	Radial	1.5	2.0	2.5	3.3
	Tangential	2.7	3.7	4.4	5.9
Spruce, Eastern	Radial	1.5	2.0	2.4	3.2
	Tangential	2.5	3.6	4.4	5.8
Spruce, Engelmann	Radial	1.4	1.9	2.3	3.0
	Tangential	2.6	3.6	4.3	5.7

Careful storage and handling of S-Dry lumber will ensure that it remains in seasoned condition when put into service. Careful storage of S-Grn lumber will allow further drying after service, thereby minimizing dimensional change which might occur after going into service.

S-Dry lumber is up to 15 percent more expensive than S-Grn lumber owing to packaging and drying costs.