

Have You Got a Screw Loose?

The durability of your furniture is dictated by the material's ability to maintain its connections.

Doesn't it make sense that the **best value for your money** would be the material that is not only cost-effective and attractive, but also has the ability for connections made to last?

SCREW RETENTION TESTING

TEST DESCRIPTION: An apparatus was fabricated which would allow the appropriate screw to be inserted into the designated type of solid hardwood or panel, to a depth of one-half inch. This same apparatus was connected to a dead-weight fixture that allowed weight to be added in small increments until the point where the screw detached itself from the specific wood and panel being tested.

SPECIFIC GRAVITY: This is the weight and density of the lumber, in other words, how heavy it feels when you pick it up. The higher the number, the heavier it feels. It could also be described as the amount of wood substance a piece of wood contains. The higher the number, the denser the wood.

Type of wood	Type of screw	Weight at screw detachment	Specific Gravity
Hard Maple	# 6 Phillips Pan Head	549 #'s	0.63
Hard Maple	# 8 Phillips Flat Head	626 #'s	
Red Oak	# 6 Phillips Pan Head	435#s	
Red Oak	# 8 Phillips Flat Head	560 #'s	0.63
Soft Maple	# 6 Phillips Pan Head	425 #'s	
Soft Maple	# 8 Phillips Flat Head	550 #'s	0.48
Birch	# 6 Phillips Pan Head	374 #'s	
Birch	# 8 Phillips Flat Head	439 #'s	0.55
Rubberwood	# 6 Phillips Pan Head	376 #'s	
Rubberwood	# 8 Phillips Flat Head	400 #'s	0.55
Red Alder	# 6 Phillips Pan Head	292 #'s	
Red Alder	# 8 Phillips Flat Head	350 #'s	0.41
Ply-Core Panel	# 6 Phillips Pan Head	190 #'s	
Ply-Core Panel	# 8 Phillips Flat Head	280 #'s	
Fiber-Core Panel (MDF)	# 6 Phillips Pan Head	190 #'s	
Fiber-Core Panel (MDF)	# 8 Phillips Flat Head	285 #'s	
45# Particle Board	# 6 Phillips Pan Head	180 #'s	
45# Particle Board	# 8 Phillips Flat Head	208 #'s	

