

**SICO's
Tabletop
Material**

MDF

*Outperforms
Particleboard
and
Plywood*



Comparative Test of Tabletop Cores

These tests were designed to compare the physical characteristics of various tabletop materials.

The materials to be tested:

- a) 3/4", 5-ply, AC grade plywood
- b) 3/4" 45 pcf particleboard
- c) 3/4" 47 pcf medium density fiberboard (MDF)

The tests were designed to test only the core material of a table top, not the laminate or the backer. The tests illustrated the comparison of strength, longevity, or abuse that tabletops may be subjected to in daily occurrences.

Density of top cores

Exact pounds per cubic foot from each of the materials.

	3/4" plywood	3/4" particleboard	3/4" MDF
Density – lb./cu. ft.	27.10	44.19	48.96
Actual thickness (inches)	.719	.746	.751

#1 Screw and rivet holding characteristics of core material.

A screw (#10 x 3/4" long) and a 1/4" x 17/32" long drive rivet were installed through a drilled hole in a typical tabletop frame. The force required to pull the fastener out of the core board is as follows:

	3/4" plywood		3/4" particleboard		3/4" MDF	
	rivet	screw	rivet	screw	rivet	screw
Force required to pull out the fastener	221 lbs.	251 lbs.	248 lbs.	289 lbs.	382 lbs.	306 lbs.

#2 Impact test with a swinging pendulum to create a dent in the edge of the material.

The pendulum test is a 55" long shaft with 22.03 pounds of weight on the end. The weight has two surfaces welded onto it – a 1/2" diameter rod and a 3-1/4" diameter surface (resembling a support post). The rod is pulled back to 30° or 60°, and the swinging weight with a specific surface strikes the test item.

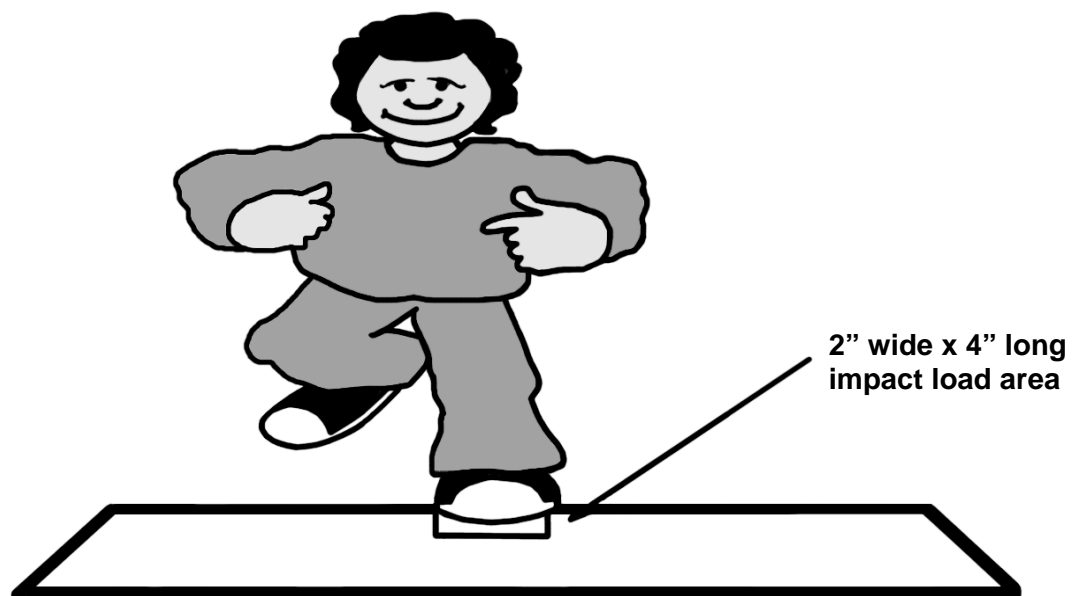
IMPACT DENT	3/4" plywood	3/4" particleboard	3/4" MDF
	depth of indentation (inches)		
pendulum @ 30° - 1/2" rod	.019	.014	.007
pendulum @ 60° - 1/2" rod	.084	.095	.029
pendulum @ 30° - 3 1/4" post	.005	.003	.001
pendulum @ 60° - 3 1/4" post	.011	.010	.008

#3. Breaking Strength

This test shows the breaking strength of a top attached to a frame with an overhang of 9".

This test simulates a heavy person standing on the very edge of the table.

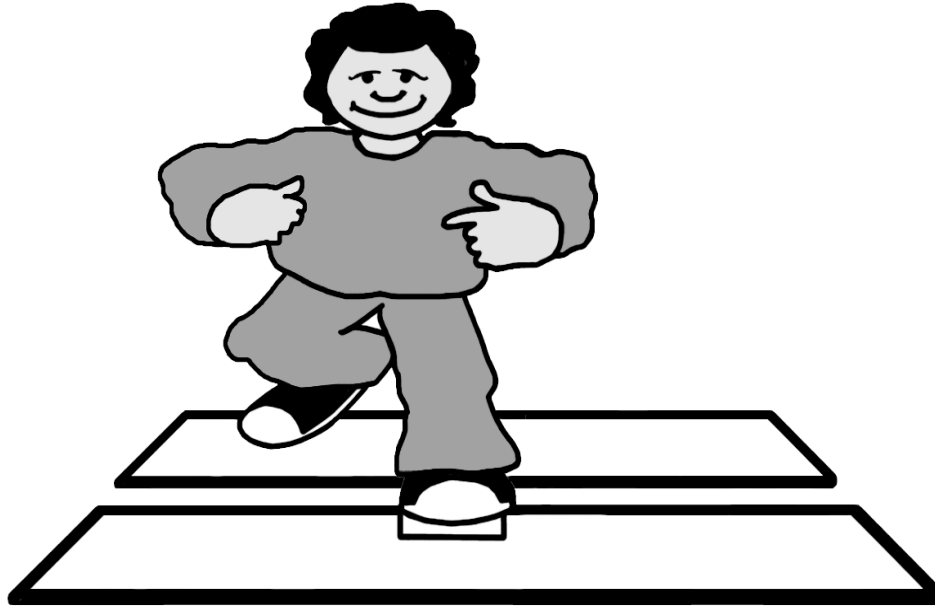
BREAKING STRENGTH	3/4" plywood	3/4" particleboard	3/4" MDF
	Weight at which breakage occurs.		
pounds of force	1015 lbs.	594 lbs.	1,285 lbs.



#4 Load testing of core materials

Tested to either measure the deflection or the force needed to break the top material. Maximum of 600 pounds used, which is about the same as a 300-pound person with an impact-type loading.

600# load on:	3/4" plywood	3/4" particleboard	3/4" MDF
deflection (inches)	.332	failed	.257



Core material testing witnessed by an independent testing laboratory. Test reports on file.

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SICO's standard tabletop is unequalled.

The standard SICO Armor-Edge® and the SICO MDF core combine to provide you with the most durable and sanitary top in the industry.



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