By mechanical tests the resistance of doors regarding :

- static distortion EN 948
- dynamic distortion EN 947
- hard body EN 950
- soft body EN 949

is determined.

The load acting up the door is increased according to the performance classes shown in the table.

Figure: soft body

Performance Classes	**N** normal	**M** medium	**S** strong	**E** extreme
Lab Tests				
- static distortion	200 N	250 N	300 N	350 N
- dynamic distortion	400 N	600 N	800 N	1000 N
- soft body (30 kg sandbag)	100 mm height of fall 30 J energy	200 mm height of fall 60 J energy	400 mm height of fall 120 J energy	600 mm height of fall 180 J energy
- hard body (500g steel-ball)	300 mm height of fall 1,5 J energy	500 mm height of fall 3 J energy	1000 mm height of fall 5 J energy	1600 mm height of fall 8 J energy
Recommended Use				
domestic	○			
flat entrance		○		
office	○	○		
school		○		
hospital		○	○	
hotel	○	○		

Possible Constructions

The mechanical characteristics are mainly influenced by :

- frame material and construction
- skin material and thickness
- core full size and compression resistant core

Application of SAUERLAND BOARD :

Full size tubular and solid board cores meet the requirements of all the three performance classes.