

BS EN 356 Intruder Resistance

Testing and Classification of resistance against Manual Attack

The Lower Resistance Level

This level represents a manual attack using a blunt instrument such as a hammer. The test comprises dropping a 100mm steel ball (4.11kg) from various heights. To pass the test the ball must not penetrate the glass.

BS EN 356	Drop Height mm	No of Strikes	Impact energy Per Stroke	Glass Thickness
P1A	1500	3 in a triangle	62J	6.8mm
P2A	3000	3 in a triangle	123J	8.1mm
P3A	6000	3 in a triangle	247J	8.5mm
P4A	9000	3 in a triangle	370J	9.5mm
P5A	9000	3 x 3 in a triangle	370J	10.3mm

The Higher Resistance Level

This level represents a more sustained assault with Hammer and Axe blows. The test comprises;

A hydraulically driven hammer head 40mm square weighing 2kg, initially being used to destroy the glass face with a min of 12 blows.

A 2kg axe head hitting the same sample a min 12 blows with the intention of cutting a 400mm square hole.

Each blow is delivered with exactly the same energy with the axe head sharpened every ten blows.

Samples are classified by the number of blows required to cut the 400mm square.

BS EN 356	Sledge + Axe Min no Blows Required	Thickness	Construction
P6B	31	18mm	Glass PVB
		11mm	Glass Poly Glass
P7B	51	28mm	Glass PVB
		11mm	Glass Poly Glass
P8B	71	36mm	Glass PVB
		13mm	Glass Poly Glass