

EN356: P6B -P8B (Hammer & Axe Test - High Level of Security)

The aim of this test is to cut out a 400 X 400 square within an 1100 X 900 test sample. The glazing is placed in a vertical frame and is impacted by way of a hammer head and axe head fitted to a mechanical arm. Firstly the hammer head is used to break the glass around the square and in generally takes 16-20 strikes to achieve this. The axe head is then fitted and its purpose is to cut through the glazing completely in order to make the 400 X 400 hole. New axe heads are fitted after every 10 strikes. The of hammer and axe strikes it took to create this hole are combined to give a total number of strikes which depicts the security level achieved, e.g. 30-50 strikes will achieve a P6B rating, whereas a glazing that took more than 71 combined strikes would achieve the highest rating P8B. There are no levels beyond P8B in this standard. TG-Secure™ P6B-P8B security products are glass to polycarbonate laminates and far exceed the security performance levels of all glass constructions to the same standard. They are available in float, toughened, and fire resistant options to E30 in timber and steel and are CAMBRIDGE FIRE RESEARCH tested (see above).



EN 356 - RESISTANCE AGAINST MANUAL ATTACK (HAMMER & AXE TEST)

Level	Hammer Strikes		Cutting Strikes		Total No. Strikes	TG Secure Standard Products		TG Secure Fire Resistant Products	
	Impact Velocity (m/s)	Impact Energy (Nm)	Impact Velocity (m/s)	Impact Energy (Nm)		Min. Thickness (mm)	Min. Weight (Kg / m ²)	Thickness (mm)	Weight (Kg / m ²)
P6B E30	12.5	350	11	300	30-50	-	-	16.5	34
P6B E60	12.5	350	11	300	30-50	-	-	16.5	34
P7B	12.5	350	11	300	51-70	10.3	22	-	-
P7B	12.5	350	11	300	51-70	11.3	23	-	-
P7B	12.5	350	11	300	51-70	16.5	33	-	-
P7B E30	12.5	350	11	300	51-70	-	-	15.5	33
P7B E30	12.5	350	11	300	51-70	-	-	16.5	34
P7B E60	12.5	350	11	300	51-70	-	-	15.5	33
P7B E60	12.5	350	11	300	51-70	-	-	16.5	34
P8B	12.5	350	11	300	71 +	16.3	34	-	-
P8B	12.5	350	11	300	71 +	17.5	35	-	-
P8B	12.5	350	11	300	71 +	18.5	35	-	-
P8B E30	12.5	350	11	300	71 +	-	-	17.5	35
P8B E30	12.5	350	11	300	71 +	-	-	18.5	37
P8B E60	12.5	350	11	300	71 +	-	-	17.5	35
P8B E60	12.5	350	11	300	71 +	-	-	18.5	37