



# ATTACK PERFORMANCE

Windell use a combination of Pilkington Optilam™ and Dorma Universal Patch fittings for Interior Glazing

## Classifications:

### Manual Attack Resistance

Category of resistance	Drop height (mm)	Number of strikes	Code designation of resistance class	Available thicknesses
P1A	1500	3 drops of 4.11kg sphere	BS EN 356 P1A	–
P2A	3000	3 drops of 4.11kg sphere	BS EN 356 P2A	6.8, 8.8, 10.8, 12.8, 16.8
P3A	6000	3 drops of 4.11kg sphere	BS EN 356 P3A	See P4A
P4A	9000	3 drops of 4.11kg sphere	BS EN 356 P4A	9.5, 11.5, 13.5, 7.5
P5A	9000	9 drops of 4.11kg sphere	BS EN 356 P5A	10.3, 12.3
P6B	Axe strikes on broken glass	From 30 to 50	BS EN 356 P6B	15, 19.5
P7B	Axe strikes on broken glass	From 51 to 70	BS EN 356 P7B	22.6
P8B	Axe strikes on broken glass	More than 70	BS EN 356 P8B	39

### Bullet Resistance

Class of resistance	Calibre	Bullet mass (g)	Bullet velocity (m/s)	Test range (m)
BR1-S BR1-NS	0.22 LR	2.60	360	10
BR2-S BR2-NS	9 mm × 19	8.00	400	5
BR3-S BR3-NS	0.357 Magnum	10.25	430	5
BR4-S BR4-NS	0.44 Magnum	15.55	440	5
BR5-S BR5-NS	5.56 × 45	4.00	950	10
BR6-S BR6-NS	7.62 × 51	9.45	830	10
BR7-S BR7-NS	7.62 × 51	9.75	820	10
SG1-S SG1-NS	Shotgun 12/70*	31.00	420	10
SG2-S SG2-NS	Shotgun 12/70	31.00	420	10

\* One strike only.

Tested by: **Pilkington**