



Rennen Glas Comparison Table

Material	Application	Thickness (mm)	Density - p (g/cm ³)	Weight (kg / m ²)	Area of windows in an average car for comparison (Subaru Forester)	Weight (kg)	Light transmission	Tensile strength σ_M at 23°C (MPa)	Impact strength acU (Charpy)	Flexural strength σ_{BB}
Annealed House glass for reference.	Timber joinery	3	2.52	7.5			89%	30~70		35~55
Annealed House glass for reference.	Aluminium joinery	4		10.0			89%	30~70		35~55
Laminated glass. Original equipment	Front Windscreen	6.76		17.0	Front 1.275 m²	21.675	86%			35 ~ 55
Toughened glass Historic	Front Windscreen	4		10.0			89%	100~120		185~210
Toughened glass. Modern	Side or rear window.	3		7.5	4 x Doors glass 2 x Rear ¼ 1 x Rear window Total: 3.12 m²	23.4	90%			185~210
Toughened glass. Modern Special light weight race versions	Side or rear window.	2		5.0			91%			185~210
Acrylic Historic	Front / Rear	6	1.17–1.20	7.2			90%	80	15 kJ/m ²	115



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Acrylic Historic	Side	4		4.8			92%			115
Acrylic		3		3.6			92%			115
Polycarbonate		4	1.20–1.22	4.8	Front 1.275 m²	6.12	85%	65	35 kJ/m ²	90
Polycarbonate		3		3.6	4 x Doors glass 2 x Rear ¼ 1 x Rear window Total 3.12 m²	11.2	86%			90
Polycarbonate		2		2.4			87%			90