Duglass
Heat-Strengthened

Heat-strengthened glass is achieved by heating the glass to a temperature approaching softening but with slower cooling than in the tempering process. This reduces the permanent tensions created, giving a glass of greater mechanical and thermal strength than annealed glass, but with a similar fracture pattern to it.

Duglass heat-strengthened glass is not considered as safety glass, as it breaks into large pieces if fractured. Nevertheless, it has similar properties to tempered glass: greater thermal shock resistance, greater tensile strength, bending and torsion strength and greater impact resistance.

The value of the mechanical resistance of Duglass heat-strengthened glass is 70 N/mm^2, keeping in mind the short quasi-static charges and a breaking probability of 5%. For calculation purposes we can take the maximum work tension of hardened glass to be 35 N/mm^2.