

Quintium™ Q20 Transparent Armor

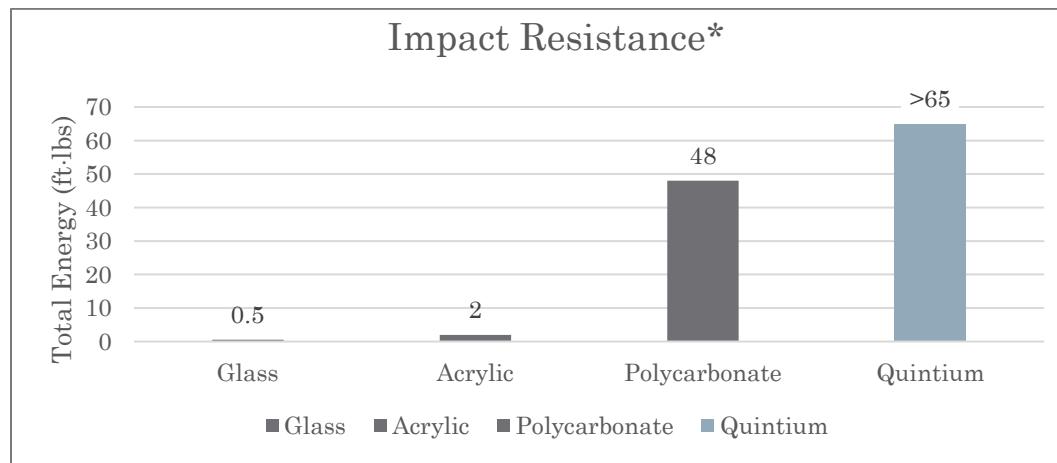
Quintium™ is a two-part 100% solids castable system. Castings are clear and can be made to optical specifications. Quintium contains a UV stabilizer package and absorbs UV radiation up through 400 nm. It can be formulated with fire retardant additives, can be tinted and has excellent heat and solvent resistance. Quintium is highly impact resistant and has a minimum V50 rating at 1139 fps. Typical “stacked” arrays may be used to improve the ballistic profile of Quintium. Quintium can be cast in various thicknesses and numerous mold configurations.

Key properties include:

- Unrivaled impact resistance and kinetic energy absorption
- Exceptional multi-hit performance
- Great optical clarity
- Significantly reduced weight: approximately $\frac{1}{2}$ of ballistic glass
- Unlike most other ballistic-resistant polymers, it is resistant to chemical solvents and aromatic hydrocarbons (e.g. gasoline)
- No charring when burning

Applications

- Bullet-resistant windows for vehicles & buildings
- Safety goggles or eye shields
- Hurricane windows
- Forced entry resistant glazing
- Transparent structures & components
- Blast-resistant transparencies
- Personal armor shielding



*Instrumented Impact per ASTM D3763, sample thickness 0.125" nominal

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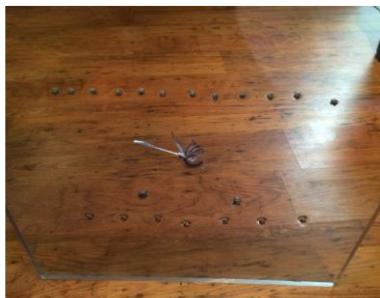
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Typical Properties*

Property	Test Method	Units	Values
Physical			
Specific Gravity	ASTM D 792	--	1.11
Hardness	ASTM D 2240	Shore D	80-82
HDT	ASTM D 648	F	300-320
Stress Craze Resistance (IPA)	ASTM F 791	psi	>7,000
Mass / Area	--	lb/ft ²	0.69
Mechanical			
Tensile Strength	ASTM D 412	psi	8,000
Elongation	ASTM D 412	%	42
Flexural Modulus	ASTM D 790	psi	194,000
Izod Impact Strength, Unnotched @ 0.125"	ASTM D 4812	ft-lbs/in	54 (no failure)
Instrumented impact @ 0.125"	ASTM D 3763	ft-lbs	>65
Optical			
Refractive Index	ASMT D 542	--	1.538
Light Transmission, Clear @ 0.118"	ASTM D 1003	%	90
Abbe Value	ASMT D 542	--	42-45
Haze	ASTM D 1003	%	0.33
Ballistics		Projectile	
Curved Face Shield	NIJ IIIA	9mm 124gr. FMJ	Meets the criteria

*Typical properties are not intended for specification purposes.



Warning & Limitations

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