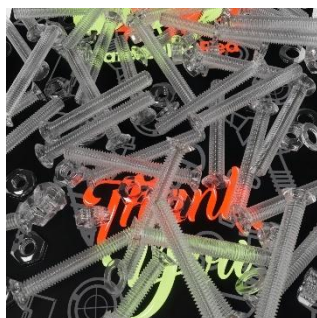


PC — Polycarbonate — Screws & Bolts



Polycarbonate is a strong, tough thermoplastic with high impact strength, good fatigue resistance, and excellent electrical insulation. It resists many weak acids and alkalis. Use within the stated temperature range; continuous high-temperature exposure will reduce performance.

Key specifications

Continuous Use Temperature	Flame Retardant Rating	Impact/Fatigue	Notes
105 °C / 221 °F	UL 94 V-2	High impact; strong fatigue resistance	Self-extinguishing behaviour; good insulation

Torsional fracture torque (Nm)

Head type	M2	M3	M4	M5	M6	M8	M10	M12
Hex Socket Head	0.15	0.35	0.78	1.38	2.95	7.50	13.25	23.81
Hexagon Head	0.20	0.30	0.70	1.30	3.30	5.73	12.03	21.08
Crosshead Countersunk Head	0.15	0.30	0.83	1.30	3.00	6.86	13.67	23.94
Slotted Countersunk Head	0.15	0.38	0.76	1.18	2.78	3.25	7.68	13.45
Pan Head	0.09	0.35	0.80	1.65	2.79	6.84	13.63	23.88

Tensile fracture load (N)

Head type	M2	M3	M4	M5	M6	M8	M10	M12
Head-agnostic	424	760	1176	2134	3361	4772	8120	11810

Material properties — PC (typical)

Property	Test method	Typical value	Unit
Density	ISO 1183	1.19–1.21	g/cm ³
Glass transition temperature (T _g)	ISO 11357	147	°C
HDT (1.8 MPa)	ISO 75	120–135	°C
Tensile strength (23 °C)	ISO 527	60–70	MPa
Tensile modulus (23 °C)	ISO 527	2.3–2.6	GPa
Charpy impact (notched)	ISO 179	6–12	kJ/m ²
Relative permittivity (1 MHz)	IEC 60250	2.9–3.1	—
Dissipation factor (1 MHz)	IEC 60250	0.001–0.01	—
Dielectric strength	IEC 60243	15–25	kV/mm

Notes

- Values are typical reference data for guidance only and are not guaranteed.
- Use a torque wrench; recommended tightening torque is approximately 50% of the listed breaking torque.
- When using bolts with nuts, select the same material for both.
- Keep the bolt end flash (end stump) length $L \leq 5\%$ of total bolt length.