

Description

Reents Technologies PC UL94 V0 (Black | White) is a fire-resistant FFF polycarbonate filament certified V-0 at 3mm by the UL94 rating. This inherently translucent polymer allows for the creation of components usable up to 140°C, subjected to high mechanical wear and resistant to severe impacts.

Identification

Name	PC UL94 V0
Chemical Name	Polycarbonate
Usage	For components usable up to 140 °C, subjected to high mechanical wear and frequent harsh impacts.

Advantages

- Great fire resistance V0
- Heat resistance up to 140 °C
- Cold resistant down to -100 °C
- Shock resistant

Properties

Mechanical properties

Test	Value	Unit	Methode
Physical			
Density	1.20	g/cm ^{^3}	ASTM D792
Water absorption	0.15	%	ASTM D570
Tensile Test performed at 1mm/min on 3D printed test specimens at 0°, along with the tension stress.			
Young's modulus	2165	MPa	ISO 527-2/1A
Ultimate strength	52	MPa	ISO 527-2/1A
Ultimate strength elongation	4.1	%	ISO 527-2/1A
Flexion			
Module de Young	2160	MPa	ASTM D790
Strength at yield	90	MPa	ASTM D638

Thermal Properties

Test	Value	Unit	Methode
MFI	10	g/10min	300°C, 1.2 kg / ASTM D1238
HDT	144 133	°C °C	D648 @ 4.6 kg/cm ² D648 @ 18.6 kg/cm ²
Thermal expansion	5.5 x 10 ⁻⁵	mm/°C	ASTM D696
Flammability	V-0	at 3.0mm	

Electric Properties

Test	Value	Unit	Method
Resistivity volume	4×10 ¹⁶	Ω.cm	ASTM D257
Dielectric strength	30	kV/mm	ASTM D149
Dielectric constant	2.80		ASTM D150
Dissipation factor	0.0082		ASTM D150
ARC resistance	120	Sec	

Certificate

REACH	Yes
RoHS	Yes
Flame retardant	UL94 V0