HeyGears

ULTRAPRINT

FR90K Flame-Retardant Rigid & Tough Black Resin

UltraPrint FR90K is a flame-retardant ABS-like engineering resin with a UL 94 V-0 rating at 3 mm thickness. It delivers a balanced combination of stiffness and toughness, with a notched impact strength of 55 J/m and a flexural modulus of 2,200 MPa. Excellent detail reproduction and heat resistance make it ideal for consumer electronics, home appliances, and power tools requiring high fire safety and structural performance.



- Flame Retardant
- Balanced Stiffness and Toughness
- Excellent Detail Reproduction

Color

Black

Specification

1000 g/Bottle

*Models created by venuasg、printing_stuff、heyitsyang.

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Basic Performance[1]

	Property	Standard	Result	Unit
Toughness	Impact Strength(Notched)	ASTM D256	55	J/m
	Work of Fracture	ISO 20795	4761	J/m^2
	Elongation at Break	ASTM D638	15	%
Stiffness	Flexural Modulus	ASTM D790	2233	MPa
Strength	Tensile Strength	ASTM D638	54	MPa
	Flexural Strength	ASTM D790	93	MPa
Thermal Resistance	Heat Deflection Temperature @0.455 MPa	ASTM D648	71 (159.8)	℃ (℉)
Others	Hardness	ASTM D256	86D	Shore D
	Viscosity	ASTM D792	2200	mPa·s
	Water Sorption	ASTM D648	1.3	%
	Flammability	UL 94	V-0 (3mm) V-1 (2.5mm)	/

Exceptional Results



Flame Retardant

Sample Request

[1]Data from HeyGears Lab. The material results are the average values from testing, with a deviation of +10%.