

PC-ABS AND PC-ABS FR | Data Sheet

Print Durable and Heat-Resistant Prototypes and End-Use Parts

PC-ABS is a strong, engineering-grade material that has both a high heat resistance and high impact resistance. When ABS does not provide a high enough impact resistance, but high heat resistance is still required, PC-ABS is a great alternative, due to the addition of polycarbonate.

PC-ABS is a common material used for injection molding purposes, and widely used across the automotive, railroad, and electronics industries. METHOD's Circulating Heated Chamber ensures dimensionally accurate prints without the risk of warping and cracking.

108º (104º) C	25.5 (42.5) KJ/M2	37.2 (60) MPA
VICAT SOFT. TEMP	IMPACT STRENGTH	TENSILE STRENGTH

PC-ABS (PC-ABS FR)

FUNCTIONAL PROTOTYPES

PC-ABS, like ABS, is regularly used in mass production for consumer and industrial products. In anticipation of large-scale manufacturing, it can be beneficial to prototype and test your prototypes using the same material used in production in order to more closely mimic the final product in form, fit, and function.

FLAME RETARDANT

PC-ABS FR is a flame retardant version of PC-ABS. Flame retardance is a common requirement for materials used in the production passenger carrying vehicles such as rail cars and automobiles and airplanes. The benefit being that FR extinguishes flames preventing the spread of fire.

END-USE PARTS

Short-run production with PC-ABS can be achieved for extremely low-volume products with the benefit of avoiding costly tooling. These parts can permanently replace injection-molded pieces, or temporarily supplement them in the case of supply-chain disruption.

PRINTING COMPLEX GEOMETRIES WITH SR-30 DISSOLVABLE SUPPORT

For printing the most complex geometries with easy support removal, PC-ABS and PC-ABS FR can be used in conjunction with Stratasys SR-30 dissolvable support material. SR-30's unique compatibility with PC-ABS results in dimensionally accurate prints with clean finishes.


PC-ABS


PC-ABS FR

TECH SPECS	PC-ABS		PC-ABS FR	
	Imperial	Metric	Imperial	Metric
Tensile Strength (ISO 527)	5300 psi	37 MPa	8700 psi	60 MPa
Strain at Break (ISO 527)	14%	14%	>50%	>50%
E-Modulus (ISO 527)	263000 psi	1820 MPa	413000 psi	2850 MPa
Impact Strength (Charpy Method 23°C ISO 179)	12.1 lb-ft/in^2	25.5 kJ/m^2	20.2 lb-ft/in^2	42.5 kj/m^2
Vicat Softening Temp (ISO 306)	226°F	108°C	219°F	104°C
Flammability-Rating (UL-94)	n/a	n/a	V0	V0

METHOD

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Powered by: stratasys

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