

# Production-grade thermoplastics for Fused Filament Fabrication (FFF)

## Overview

rapid prototype and manufacturing llc (rp+m) specializes in high quality printed parts using fused filament fabrication, boasting significant capacity for both high and low temperature polymers. Varying print resolutions are available to fit your application needs.

rp+m is AS9100:2016 Certified, ISO 9001:2015 Certified, Small Business Certified, and ITAR registered.



		Mechanical Properties			Thermal Properties		Electrical Properties	
Purpose	Product	Tensile Strength, Yield (MPa)	Flexural Modulus (MPa)	Impact Resistance, Unnotched (J/m) (XZ Orientation)	HDT (C°) @ 66 psi	CTE-Flow (µm/(m·°C))	Volume Resistivity (Ohm-cm)	Available Colors
Functional and Durable Modeling	ABS	26	1,772	324	98	76.3	4.13x10 <sup>14</sup>	Black, White, Natural, Red, Blue, Grey
	ABS-M30i	36	2,300	283	96	88.2	1.5x10 <sup>14</sup>	Ivory
	ABS-ESD7	36	2,400	55	96	88.2	3.0x10 <sup>9</sup>	Black
	ABSi	37	1,920	191	86	121.0	1.5x10 <sup>9</sup>	Translucent Natural, Translucent Amber, Translucent Red
	ASA	30	1,630	321	98	88.0	1.0x10 <sup>14</sup>	Black, White, Grey
High Strength/High Impact Resistance	PC-10	42	1,800	887	138	68.4	6.0x10 <sup>13</sup>	White
	Lexan AMHI240F (PC)	40	1,500	880	138	79.0	1.05x10 <sup>15</sup>	Black, White
	PC-ABS	41	1,900	481	110	73.8	2.0x10 <sup>14</sup>	Black, White
	PC-ISO	57	2,100	53	133	---	1.5x10 <sup>14</sup>	Translucent Natural, White
High Modulus/Chemical Resistance	Nylon 12	48	1,250	275	75	---	---	Black
	Nylon 12 CF	34	2,070	85	143 *(@254 psi)	25.0	1.4X10 <sup>5</sup>	Black
High Temperature/High Chemical Resistance	Ultem 9085	42	2,050	172	153 *(@264 psi)	65.3	4.9x10 <sup>15</sup>	Tan (Natural), Black
	Ultem 9085 CG	59	2,300	74	153 *(@264 psi)	65.3	4.9x10 <sup>15</sup>	Tan (Natural)
	Ultem 1010	48	2,230	326	216	47.0	1.0x10 <sup>14</sup>	Amber (Natural)
	PPSF	55	2,200	166	189 *(@264 psi)	55.0	1.5x10 <sup>14</sup>	Tan (Natural)

NOTE: Mechanical Values are based on ZX orientation and reflect minimum values.

Let's talk.

Contact an rp+m professional today:  
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