

Data sheet – ABS

Fused Deposition Modelling (FDM)

ABSplus-P430 is a true production-grade thermoplastic and is an Ideal material for conceptual modelling, functional prototyping, manufacturing tools, and end-use-parts, available in either white or black. Other colours are available, please enquire for details. Material sample's available on request.

Mechanical Properties		Test Method	English	Metric
Tensile Strength	(Type 1, 0.125", 0.2"/min)	ASTM D638	5,300 psi	37 MPa
Tensile Modulus	(Type 1, 0.125", 0.2"/min)	ASTM D638	330,000 psi	2,320 MPa
Tensile Elongation	(Type 1, 0.125", 0.2"/min)	ASTM D638	3%	3%
Flexural Strength	(Method 1, 0.05"/min)	ASTM D790	7,600 psi	53 MPa
Flexural Modulus	(Method 1, 0.05"/min)	ASTM D790	320,000 psi	2,250 MPa
IZOD Impact, notched	(Method A, 23°C)	ASTM D256	2.0 ft-lb/in	106 J/m

Thermal Properties		Test Method	English	Metric
Heat Deflection (HDT) @ 66 psi		ASTM D648	204°F	96°C
Heat Deflection (HDT) @ 264 psi		ASTM D648	180°F	82°C
Coefficient of Thermal Expansion		ASTM E831	4.90 E -05 in/in/°F	----
Melt Point		-----	Not Applicable	Not Applicable

Electrical Properties		Test Method	Value Range
Volume Resistivity		ASTM D257	3.0 x 10e14 - 6.0 x 10e13 ohms
Dielectric Constant		ASTM D150-98	2.9 - 2.3
Dissipation Factor		ASTM D150-98	0053 - .0046
Dielectric Strength		ASTM D149-09, A	320 - 100 V/mil

Other		Test Method	Value
Specific Gravity		ASTM D792	1.04

Other		Value
Recommended minimum wall thickness		0.9mm
Build layer thickness		0.25mm
Maximum build size		204mm x 204mm x 153mm
General tolerance X/Y plane		+/- 0.08mm
General tolerance Z axis		+/- 0.25mm (min)