

Prosilas

Polycarbonate-ABS

FDM MATERIAL

		XZ Orientation ⁽¹⁾	ZX Orientation ⁽¹⁾
Tensile Properties: ASTM D638			
Yield Strength	MPa	36.5 (0.73)	No yield
	psi	5300 (110)	No yield
Elongation @ Yield	%	3.0 (0.083)	No yield
Strength @ Break	MPa	34.7 (0.83)	25.9 (1.6)
	psi	5040 (120)	3760 (230)
Elongation @ Break	%	4.7 (0.75)	1.8 (0.22)
Modulus (Elastic)	GPa	1.99 (0.038)	1.87 (0.19)
	ksi	288 (5.5)	270 (27)
Flexural Properties: ASTM D790, Procedure A			
Strength @ Break	MPa	No break	46.2 (2.0)
	psi	No break	6700 (290)
Strength @ 5% Strain	MPa	61.9 (1.2)	-
	psi	8970 (170)	-
Strain @ Break	%	No break	3.51 (0.30)
Modulus	GPa	1.86 (0.14)	1.68 (0.069)
	ksi	269 (20)	244 (10)
Compression Properties: ASTM D695			
Yield Strength	MPa	96.5 (3.6)	172 (13)
	psi	14000 (530)	25000 (1900)
Modulus	GPa	2.14 (0.19)	1.85 (0.050)
	ksi	310 (27)	269 (7.3)

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Impact Properties: ASTM D256, ASTM D4812			
Notched	J/m	241 (40)	34.0 (6.0)
	ft*lb/in.	4.52 (0.75)	0.637 (0.11)
Unnotched	J/m	655 (127)	101 (23)
	ft*lb/in.	12.3 (2.4)	1.89 (0.43)

¹ Values in parentheses are standard deviations.

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