

Material Properties		Vacuum casting: rigid and semi rigid materials							
Name		SG 95	8051	PX 245	PX 5213	PX 223 HT	PX 234 HT	9011	
Supplier		SLM	SLM	Axson	Axson	Axson	Axson	SLM	
Material type		PUR	PUR	PUR	PUR	PUR	PUR	PUR	
Base colour		colourless	white	light grey	colourless	black	brownish	white	
Characterisation		ABS	ABS	PA / POM	PMMA / PC	PC/ABS	PA 6.6	PP (FDA)	
Physical properties	unit								
Density	g/cm ³	1.14	1.1	1.22	1.06	1.14	1.19	1.11	
Shore hardness	Shore	D 82	D 84	D 85	D 86	D 80	D 80	D 77	
Tensile modulus	MPa	2520	2150	4600	2600		1800		
Flexural modulus	MPa	2200	1970	4500	2100	1900	1850	1310	
Tensile strength	MPa	54	56	85	68	59	61	40	
Flexural strength	MPa	89	86	150	100	81	80	51	
Elongation to yield	%	6	5						
Elongation to break	%	12	8	3	4	10	13	25	
Impact resistance (unnotched)	kJ/m ²			30	42	> 60	41		
Impact resistance (notched)	kJ/m ²	8.9	9.8						
Tear resistance	N/mm								
Glass transition (Tg)	° C	85	110	95	100	> 120	220	108	
Heat deflection temp @ 0.46 MPa	° C							90	
Heat deflection temp @ 1.81 Mpa	° C	72	92	92	85	110	195		
Coeff. of linear expansion (0-100 C)	10 ⁻⁴ K ⁻¹	1.3	1			1.15	1.2		
Dielectric constant @ (kHz)		3.65 (1)	4.2 (1)						
Dielectric strength	kV/mm	31							
Thermal conductivity	W/mK	0.21	0.23						
Processing									
Shrinkage	%	0.2	0.2 - 0.3	0.2	-	0.4	0.45	0.5 - 1	
Colourability		unlimited	good	limited	unlimited	none	limited	good	
# parts / mould / day		6 - 8	6 - 8	4 - 6	4 - 6	6 - 8	2 - 4	2 - 4	
Turnover* (typical) :	days	2 - 4	2 - 4	2 - 4	3 - 5	3 - 5	5 - 7	5 - 7	
Remarks:	* for first moulded part							FDA / Foodsafe	