

APPENDIX 1

Some Properties of Common Polymers

NAME(S)	CODE	Amorphous - Crystalline	DENSITY g cm ⁻³	MELTING POINT °C	PROCESS (INJECTION) TEMP' T ₁ °C	MOULD (EJECTION) TEMP T ₂ °C	LATENT HEAT J g ⁻¹	SPECIFIC HEAT J g ⁻¹
Acrylic-Butadiene Styrene	ABS	A	1.11	110	240	75	0	0.98
Polyacetal Copolymer	POM	C	1.41-1.50	163-169	180/230	90	163	1.47
Nylon 11	PA11	C	1.05	175	190/270	20/100	105	1.50
Nylon 12	PA12	C	1.05	175	190/270	20/100	105	1.50
Nylon 6	PA 6	C	1.13	225	240/290	40/120	135	1.59
Nylon 66	PA 6.6	C	1.38	255	260/300	40/120	130	1.68
Nylon 66 + 40% Glass Filling			1.39	255	240/290	40/120	130	1.26
Polymethyl Methacrylate	PMMA	A	1.185	100	245	70	0	1.47
Polycarbonate	PC	A	1.20	225	270/380	80/120	0	1.26
Polyethylene LD	LDPE	C	0.917	125	160/240	20/70	130	2.3
Polyethylene HD	HDPE	C	0.950	135	180/300	10/90	242	2.3
Polyethylene Terephthalate	PETP	C	1.37	245	260/290	30/140	?	2.18
Polyphenylene Oxide	PPO	A	1.08	120	260/300	80/110	0	2.12
Polypropylene	PP	C	0.90	165	200/300	20/90	101	2.0
Polystyrene	PS (SB)	A	1.06	100	170/280	20/80	0	1.4
Polyethersulphone	PES	A	1.37	230	340/390	120/160	0	1.00
Polyvinyl Chloride	PVC	A	1.35	100	160/210	10/50	0	0.98
Polysulfone	PSU	A	1.24	200	310/390	95/115	0	1.68
Styrene Acrylonitrile	SAN	A	1.33	115	200/260	50/80	0	1.38