

Thermoplastics

Name	Su kpsi	E Mpsi	Hardness Rockwell	Elongation %	Dimensional Stability	Heat Resistance	Chemical Resistance	Processing
ABS group	2-8	0.10-0.37	60-110R	3-50	Good	*	Fair	EMST
Acetal group	8-10	0.41-0.52	80-94M	40-60	Excellent	Good	High	M
Acrylic	5-10	0.20-0.47	92-110M	3-75	High	*	Fair	EMST
Fluoroplastic group	0.50-7	...	50-80D	100-300	High	Excellent	Excellent	MPR
Nylon	8-14	0.18-0.45	112-120R	10-200	Poor	Poor	Good	CEM
Phenylene oxide	7-18	0.35-0.92	115R, 106L	5-60	Excellent	Good	Fair	EFM
Plycarbonate	8-16	0.34-0.86	62-91M	10-125	Excellent	Excellent	Fair	EMST
Polyester	8-18	0.28-1.6	65-90M	1-300	Excellent	Poor	Excellent	CLMR
Polyimide	6-50	...	88-120M	Very low	Excellent	Excellent	Excellent	CLMP
Polyphenylene sulfide	14-19	0.11	122R	1.0	Good	Excellent	Excellent	M
Polystyrene group	1.5-12	0.14-0.60	10-90M	0.5-60	...	Poor	Poor	EMST
Polysulfone	10	0.36	120R	50-100	Excellent	Excellent	Excellent	EFM
Polyvinyl chloride	1.5-7.5	0.35-0.60	65-85D	40-450	...	Poor	Poor	EFM

* Heat Resistant Grades

C Coatings L Laminates R Resins E Extrusions M Moldings S Sheet F Foams P Press and sinter methods T Tubing

Source: This data was obtained from the *Machine Design Materials Reference Issue*, published by Penton/IPC Cleveland.