

Tolerance Grade Selection Guide for Molded Parts - Commonly Used Plastics

Material Code	Material	Tolerance Class			
		High Precision	General	None	
ABS	Acrylonitrile-butadiene-styrene	MT2	MT3	MT5	
AS	Acrylonitrile-styrene	MT2	MT3	MT5	
CA	Acetate fiber plastic	MT3	MT4	MT6	
EP	Epoxy resin	MT2	MT3	MT5	
PA	Nylon	No filler	MT3	MT4	MT6
		Fiberglass filled	MT2	MT3	MT5
PBTP	P-x butylene glycol	No filler	MT3	MT4	MT6
		Fiberglass filled	MT2	MT3	MT5
PC	Polycarbonate	MT2	MT3	MT5	
PDAP	Poly (diallyl phthalate)	MT2	MT3	MT5	
PE	Polyethylene	MT5	MT6	MT7	
PESU	Polyether sulfone	MT2	MT3	MT5	
PETP	P-x acid ethylene glycol ester	No filler	MT3	MT4	MT6
		Fiberglass filled	MT2	MT3	MT5
PMMA	Polymethylmethacrylate	MT2	MT3	MT5	

Material Code	Material	Tolerance Class			
		High Precision	General	None	
PF	Bakelite Plastic	Inorganic fillers	MT2	MT3	MT5
		Organic fillers	MT3	MT4	MT6
POM	POM	≤150mm	MT3	MT4	MT6
		>150mm	MT4	MT5	MT7
PP	Polypropylene	No filler	MT3	MT4	MT6
		Inorganic fillers	MT2	MT3	MT5
PPO	Polyphenylene ether	MT2	MT3	MT5	
PPS	Polyphenylene sulfide	MT2	MT3	MT5	
PS	Polystyrene	MT2	MT3	MT5	
PSU	Polysulfone	MT2	MT3	MT5	
RPVC	Rigid PVC	MT2	MT3	MT5	
SPVC	Soft PVC	MT5	MT6	MT7	
VF/MF	Aminophenol Plastic	Inorganic fillers	MT2	MT3	MT5
		Organic fillers	MT3	MT4	MT6

Dimensional Tolerances for Plastic Parts (Per GB/T14486-93)

Grade	Type	Basic Size																								
		3	6	10	14	18	24	30	40	50	65	80	100	120	140	160	180	200	225	250	280	315	355	400	450	500
MT1	A	0.07	0.08	0.09	0.10	0.11	0.12	0.14	0.16	0.18	0.20	0.23	0.26	0.29	0.32	0.36	0.40	0.44	0.48	0.52	0.56	0.60	0.64	0.70	0.78	0.86
	B	0.14	0.16	0.18	0.20	0.21	0.22	0.24	0.26	0.28	0.30	0.33	0.36	0.39	0.42	0.46	0.50	0.54	0.58	0.62	0.66	0.70	0.74	0.80	0.88	0.96
MT2	A	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.30	0.34	0.38	0.42	0.46	0.50	0.54	0.60	0.66	0.72	0.76	0.84	0.92	1.00	1.10	1.20
	B	0.20	0.22	0.24	0.26	0.28	0.30	0.32	0.34	0.36	0.40	0.44	0.48	0.52	0.56	0.60	0.64	0.70	0.76	0.82	0.86	0.94	1.02	1.10	1.20	1.30
MT3	A	0.12	0.14	0.16	0.18	0.20	0.24	0.28	0.32	0.36	0.40	0.46	0.52	0.58	0.64	0.70	0.78	0.86	0.92	1.00	1.10	1.20	1.30	1.44	1.60	1.74
	B	0.32	0.34	0.36	0.38	0.40	0.44	0.48	0.52	0.56	0.60	0.66	0.72	0.78	0.84	0.90	0.98	1.06	1.12	1.20	1.30	1.40	1.50	1.64	1.80	1.94
MT4	A	0.16	0.18	0.20	0.24	0.28	0.32	0.36	0.42	0.48	0.56	0.64	0.72	0.82	0.92	1.02	1.12	1.24	1.36	1.48	1.62	1.80	2.00	2.20	2.40	2.60
	B	0.36	0.38	0.40	0.44	0.48	0.52	0.56	0.62	0.68	0.76	0.84	0.92	1.02	1.12	1.22	1.32	1.44	1.56	1.68	1.82	2.00	2.20	2.40	2.60	2.80
MT5	A	0.20	0.24	0.28	0.32	0.38	0.44	0.50	0.56	0.64	0.74	0.86	1.00	1.14	1.28	1.44	1.60	1.76	1.92	2.10	2.30	2.50	2.80	3.10	3.50	3.90
	B	0.40	0.44	0.48	0.50	0.58	0.64	0.70	0.76	0.84	0.94	1.06	1.20	1.34	1.48	1.64	1.80	1.96	2.12	2.30	2.50	2.70	3.00	3.30	3.70	4.10
MT6	A	0.26	0.32	0.38	0.46	0.54	0.62	0.70	0.80	0.94	1.10	1.28	1.48	1.72	2.00	2.20	2.40	2.60	2.90	3.20	3.50	3.80	4.30	4.70	5.30	6.00
	B	0.46	0.52	0.58	0.68	0.74	0.82	0.90	1.00	1.14	1.30	1.48	1.60	1.90	2.20	2.40	2.60	2.80	3.10	3.40	3.70	4.00	4.50	4.90	5.50	6.20
MT7	A	0.38	0.48	0.58	0.68	0.78	0.88	1.00	1.14	1.32	1.54	1.80	2.10	2.40	2.70	3.00	3.30	3.70	4.10	4.50	4.90	5.40	6.00	6.70	7.40	8.20
	B	0.58	0.68	0.78	0.88	0.98	1.08	1.20	1.34	1.58	1.74	2.00	2.30	2.60	3.10	3.20	3.50	3.90	4.30	4.70	5.10	5.60	6.20	6.90	7.60	8.40

Test Conditions: 24 hours after molding or "post-treatment", specimen are tested at 23±2 °C and 65±5% humidity.

Other materials are selected according to shrinkage characteristic value S: 1% (MT2,3,5) 2% (MT3,4,6) 3% (MT4,5,7).