

Shrinkage Rates for Common Plastics

Material	Density	Glass Fiber Content	Specific Heat Capacity	Processing Temperature	Mold Temperature	Shrinkage Rate
–	[g/cm³]	[%]	[kJ/(kg·K)]	[°C]	[°C]	[%]
PS	1.05	–	1.3	180-280	10	0.3-0.6
HI-PS	1.05	–	1.21	170-260	5-75	0.5-0.6
SAN	1.08	–	1.3	180-270	50-80	0.5-0.7
ABS	1.06	–	1.4	210-275	50-90	0.5-0.7
ASA	1.07	–	1.3	230-260	40-90	0.4-0.6
LDPE	0.954	–	2.0-2.1	160-260	50-70	1.5-5.0
HDPE	0.92	–	2.3-2.5	260-300	30-70	1.5-3.0
PP	0.915	–	0.84-2.5	250-270	50-75	1.0-2.5
PPGR	1.15	30	1.1-1.35	260-280	50-80	0.5-1.2
IB	–	–	–	150-200	–	–
PMP	0.83	–	–	280-310	70	1.5-3.0
PVC-soft	1.38	–	0.85	170-200	15-50	>0.5
PVC-rigid	1.38	–	0.83-0.92	180-210	30-50	0.5
PVDF	1.2	–	–	250-270	90-100	3.0-6.0
PTFE	2.12-2.17	–	0.12	320-360	200-230	3.5-6.0
FEP	–	–	–	–	–	–
PMMA	1.18	–	1.46	210-240	50-70	0.1-0.8
POM	1.42	–	1.47-1.5	200-210	>90	1.9-2.3
PPO	1.06	–	1.45	250-300	80-100	0.5-0.7
PPO-GR	1.27	30	1.3	280-300	80-100	–
CA	1.27-1.3	–	1.3-1.7	180-320	50-80	0.5
CAB	1.17-1.22	–	1.3-1.7	180-230	50-80	0.5
CP	1.19-1.23	–	1.7	180-230	50-80	0.5
PC	1.2	–	1.3	280-320	80-100	0.8
PC-GR	1.42	10-32	1.1	300-330	100-120	0.15-0.55
PET	1.37	–	–	260-290	140	1.2-2.0
PET-GR	1.5-1.57	20-30	–	260-290	140	1.2-2.0
PBT	1.3	–	–	240-260	60-80	1.5-2.5
PBT-GR	1.52-1.57	30-50	–	250-270	60-80	0.3-1.2
PA 6	1.14	–	1.8	240-260	70-120	0.5-2.2
PA 6-GR	1.36-1.65	30-50	1.26-1.7	270-290	70-120	0.3-1
PA 66	1.15	–	1.7	260-290	70-120	0.5-2.5
PA66-GR	1.20-1.65	30-50	1.4	280-310	70-120	0.5-1.5
PA 11	1.03-1.05	–	2.4	210-250	40-80	0.5-1.5
PA 12	1.01-1.04	–	1.2	210-250	40-80	0.5-1.5
PSO	1.37	–	–	310-390	100-160	0.7
PPS	1.64	40	–	370	>150	0.2
PUR	1.2	–	1.85	195-230	20-40	0.9
PF	1.4	–	1.3	60-80	170-190	1.2
MF	1.5	–	1.3	70-80	150-165	1.2-2

MPF	1.6	–	1.1	60-80	160-180	0.8-1.8
UP	2.0-2.1	–	0.9	40-60	150-170	0.5-0.8
EP	1.9	30-80	1.7-1.9	ca.70	160-170	0.2

Disclaimer: The shrinkage rates listed in this chart are for general reference only. Actual values may vary depending on material grade, processing conditions, and part geometry. Always consult your material supplier or testing results for precise shrinkage data.

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