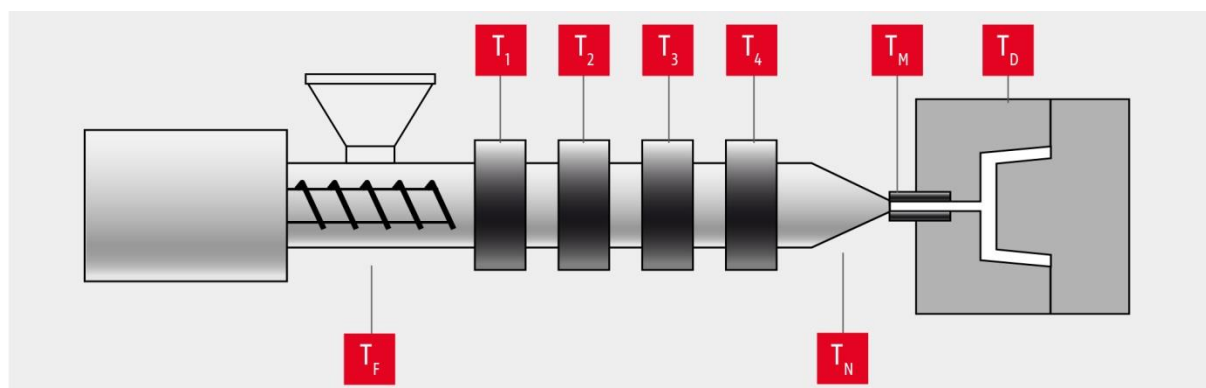


TOPAS[®] 5013S-04

Cyclic Olefin Copolymer

Processing Conditions for Injection Molding



Processing Temperatures

T_F	T_1	T_2	T_3	T_4	T_N	T_M	T_D
< 100 °C	230-260 °C	240-270 °C	250-280 °C	260-290 °C	240-300 °C	240-300 °C	95-125 °C
< 212 °F	446-500 °F	464-518 °F	482-536 °F	500-554 °F	464-572 °F	464-572 °F	203-257 °F

Max. Residence Time	< 15 min; short interruption to cycle: reduce $T_x = 170$ °C 338 °F !
Injection Pressure	$P_{Sp} = 500 - 1100$ bar 7- 16 kpsi (specific)
Hold on Pressure	$P_N = 300 - 600$ bar 4- 9 kpsi (specific)
Back Pressure	$P_{St} = 150$ bar 2200 psi max. (specific)
Screw Speed	$n_s = 50 - 200$ rpm
Injection Speed	moderate to fast (50 mm/sec - 150 mm/sec)
Nozzle Type	free – flow
Pre Drying	100°C (212 °F) / 6hours

Note

Shrinkage is dependent on processing conditions and part design. Typical shrinkage values are 0,4 - 0,7%

TOPAS Advanced Polymers recommends only external heated hot runner systems.

For molded parts with especially high requirements to the surface quality we recommend to choose the highest possible mold temperature.

