



Processing Conditions

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		Tecomid® NA (PA6.6)				Tecomid® NB (PA6)				Tecomid® NC (PA6.6/6)				Tecomid® NI (PA6.10)			
		Polyamide 6.6				Polyamide 6				Polyamide 6.6/6				Polyamide 6.10			
		Unreinforced	Impact Modified	Reinforced	Flame Retardant	Unreinforced	Impact Modified	Reinforced	Flame Retardant	Unreinforced	Impact Modified	Reinforced	Flame Retardant	Unreinforced	Impact Modified	Reinforced	Flame Retardant
Processing Temperature(°C)	min.	270	260	270	260	240	230	250	230	260	250	260	250	240	230	250	230
	max.	290	290	300	280	260	260	270	250	280	280	290	270	260	260	270	250
Mold Temperature (°C)	min.	50	50	70	50	40	40	60	40	50	50	70	70	40	40	60	40
	max.	90	90	110	100	80	80	100	90	90	90	110	100	80	80	100	90
Injection Speed		Med. Fast	Med. Fast	Fast	Med. Fast	Med. Fast	Med. Fast	Fast	Med. Fast	Med. Fast	Med. Fast	Fast	Med. Fast	Med. Fast	Med. Fast	Fast	Med. Fast
Maximum Screw Speed (mm/s)		400	400	200	200	400	400	200	200	400	400	200	200	400	400	200	200
Drying (°C / Hour)		80 / 2				80 / 2				80 / 2				80 / 2			
Maximum Moisture Content (%)		0.2				0.2				0.2				0.2			
Feed Throat Temperature (°C)		60 - 80				60 - 80				60 - 80				60 - 80			
Back Pressure		Low				Low				Low				Low			
Hold Pressure (MPa)		100 - 50				100 - 50				100 - 50				100 - 50			
Clamping Force (ton/cm²)		0.5 - 0.75				0.5 - 0.75				0.5 - 0.75				0.5 - 0.75			
Compression Ratio		2.5 - 3.5:1				2.5 - 3.5:1				2.5 - 3.5:1				2.5 - 3.5:1			
Length / Diameter Ratio (D)		18 - 22				18 - 22				18 - 22				18 - 22			
Shot/Barrel Capacity Ratio (%)		25 - 75				25 - 75				25 - 75				25 - 75			

*: please refer to the relevant technical data sheet for the recommended process conditions

All information in this complete document presents current state of knowledge and experience. The information and data may not be valid when any mentioned material is used in combination with other materials. These data do not guarantee certain values since it may vary on processing conditions and end-use conditions. All information and data are provided for reference purposes only and should not be used alone to create specification limits and design basis. It is strongly recommended to test the product under own processing conditions and test facilities to determine the suitability for the required application and use.

Processing Conditions

		Tecotron® XS (PPS)	Tecopeek® PK (PEEK)		Tecolen® HP & CP (PPHP & PPCP)				Tecoform® PO (POM)		
		Polyphenylene sulfide	Polyether ether ketone		Polypropylene				Polyacetal		
		Reinforced	Unreinforced	Reinforced	Unreinforced	Impact Modified	Reinforced	Flame Retardant	Unreinforced	Impact Modified	Reinforced
Processing Temperature(°C)	min.	290	350	350	200	200	200	200	180	170	190
	max.	340	390	390	240	240	240	240	220	210	230
Mold Temperature (°C)	min.	135	160	160	20	20	20	20	60	60	60
	max.	150	200	200	50	50	50	50	100	80	120
Injection Speed		Medium Fast	Fast	Fast	Med. Fast	Med. Fast	Med.	Med.	Medium Fast	Medium Fast	Medium Fast
Maximum Screw Speed (mm/s)		200	400	400	400	400	200	200	300	300	200
Drying (°C / Hour)		140 / 2 - 4	150 - 160 / 2 - 3		-			100 - 120 / 3			
Maximum Moisture Content (%)		0.02	0.02		-			0.02			
Feed Throat Temperature (°C)		80 - 100	80 - 100		<60			30 - 50			
Back Pressure		Low	Low		Low			Low			
Hold Pressure (MPa)		30 - 70	80 - 120		40 - 80			80 - 100			
Clamping Force (ton/cm²)		0.25 - 0.5	0.5 - 2		0.3 - 0.5			0.5 - 1			
Compression Ratio		2.5 - 3.0:1	2.0 - 2.5 :1		2.5 - 3.0:1			2.0 - 2.5:1			
Length / Diameter Ratio (D)		18 - 24	18 - 24		16 - 24			17 - 23			
Shot/Barrel Capacity Ratio (%)		30 - 70	30 - 70		30 - 70			20 - 80			

*: please refer to the relevant technical data sheet for the recommended process conditions

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Tecotek® PC (PC)				Tecotek® BC (PC/ABS)				Tecotek® OP (PPO/PS)			Tecotek® (PPO/PA)			Tecotek® EI (PEI)		Tecotek® ES (PESU)	
Polycarbonate				Polycarbonate / Acrylonitrile butadiene styrene				Polyphenyleneoxide / Polystyrene			Polyphenyleneoxide / Polyamide			Polyetherimide		Polyethersulfone	
Unreinforced	Impact Modified	Reinforced	Flame Retardant	Unreinforced	Impact Modified	Reinforced	Flame Retardant	Impact Modified	Reinforced	Flame Retardant	Unreinforced	Reinforced	Flame Retardant	Unreinforced	Reinforced	Unreinforced	Reinforced
240	240	240	240	240	240	240	240	270	280	270	270	280	270	350	350	350	350
300	300	310	290	300	300	280	280	300	300	290	300	300	290	400	400	400	400
40	40	80	70	40	40	40	40	60	80	60	80	80	80	135	135	135	135
100	100	120	100	100	100	100	80	120	120	120	120	120	120	165	165	165	165
Med. Fast	Med. Fast	Med. Fast	Med. Fast	Med. Fast	Med. Fast	Med. Fast	Med. Fast	Medium Fast	Medium Fast	Medium Fast	Medium Fast	Medium Fast	Medium Fast	Medium Fast	Medium Fast	Medium Fast	Medium Fast
200	200	200	200	400	400	200	200	400	200	200	400	200	200	200	200	200	200
80 - 120 / 3 - 4				120 / 4				120 - 180 / 2 - 4*			100 - 120 / 2 - 4*			150 / 4 - 6		150 / 4 - 6	
0.02				0.2				0.02			0.02			0.02		0.02	
60 - 80				60 - 80				60 - 80			60 - 80			60 - 80		60 - 80	
Low				Low				Low			Low			Low		Low	
60 - 120				40 - 80				50 - 70			50 - 70			60 - 100		60 - 100	
0.4 - 0.6				0.5 - 0.75				0.2 - 1			0.2 - 1			0.2 - 1		0.2 - 1	
2.0 - 2.5:1				2.5 - 3.5:1				2.0 - 2.5:1			2.0 - 2.5:1			1.8 - 2.4:1		1.8 - 2.4:1	
18 - 22				18 - 22				20			20			20		20	
25 - 75				30 - 60				30 - 70			30 - 70			30 - 70		30 - 70	

Troubleshooting Guide

	Black Specks	Silver Streaks (splay)	Air Streaks	Poor Surface Finish	Blush (flow mark)	Burns (diesel effect)	Discoloration	Gloss Difference	Blister	Bubbles	Void	Delamination	
MACHINE	Melt Temperature	4▼	3▼	7▼	2▲	5▼▲	6▼	2▼	6▼▲	3▼	12▼	2▲	
	Nozzle Temperature		7▼	8▼			5▼	3▼					
	Injection Pressure				4▲	1▲	3▼			1▲	7▲		
	Hold Pressure				5▲			3▼▲		2▲	5▲		
	Back Pressure	6▼	6▼					5▼					
	Injection Time												
	Holding Time				6▲			4▼▲			4▲		
	Cycle Time	5▼	9▼					6▼					
	Cooling Time				8▲								
	Injection Speed		5▼		3▲	2▼▲	2▼		5▼▲		6▼	6▲	3▼▲
	Clamping Force								4▼				
	Shot Size									8▲	1▲		
	Screw Speed		4▼					4▼	1▼				
	Check Screw - Barrel Wear	7		2									
	Check Heater Bands					4							
	Check Suction			1▼			4			4			
	Check Dead Edges	8											
	Purge Cylinder	1	10					1				7	
Use Fixture and Jigs													
MOLD	Mold Temperature		8▼		1▲	6▼▲		2▼▲		3▲		1▲	
	Make Even Mold Temperature				10	7							
	Check Venting		11	6		8	1	7	7	2	5		
	Runner - Spure - Gate Size		12▲			9▲				7▲	3▲		
	Length of Spure									9▼			
	Change Gate Location				9				6	10	2		
Check Mold Surface				7			1						
MATERIAL	Dry Material		1	5		3	7			11		6	
	Check Material Contamination	2	2	3				8	5			4	
	Check Re grind Quality	3		4				9				5	
	Check Material Flow Property						8						

Numbers show the necessary action sequence

- ▲: increase
- ▼: decrease
- ▼▲: adjust



Karamehmet Mah. A.S.B.
Avrasya Bulvarı No:8, TR 59930
Ergene, Tekirdağ / Turkey
T: +90 282 265 12 00 pbx
F: +90 282 691 12 18
www.eurotec-ep.com