

Machining guidelines

Production facility processes

	Turning					Milling			Drilling				
	1	2	3	4	5	1	2	4	1	2	6	4	5
PVC	8 - 10	0 - 5	50 - 60	200 - 750	0.3 - 0.5	5 - 10	0 - 15	300 - 1000	5 - 10	3 - 5	60 - 100	30 - 120	0.1 - 0.5
PP / PE	6 - 10	0 - 5	45 - 60	250 - 500	0.1 - 0.5	10 - 20	5 - 15	250 - 500	5 - 15	10 - 20	60 - 90	50 - 150	0.1 - 0.3
ABS	5 - 15	25 - 30	15	200 - 500	0.2 - 0.5	5 - 10	0 - 10	300 - 500	8 - 12	10 - 30	60 - 90	50 - 200	0.2 - 0.3
Acrylic	5 - 10	0 - 4	15	200 - 300	0.1 - 0.2	2 - 10	2 - 10	2000	3 - 8	0 - 4	60 - 90	20 - 60	0.1 - 0.5
PC / PPE	5 - 12	6 - 8	45 - 60	200 - 350	0.1 - 0.5	5 - 20	5 - 15	250 - 350	8 - 10	10 - 20	90	50 - 100	0.1 - 0.3
Nylon	6 - 10	0 - 5	45 - 60	200 - 500	0.1 - 0.4	10 - 20	5 - 15	250 - 500	5 - 15	10 - 25	90	50 - 150	0.1 - 0.3
Acetal	6 - 8	0 - 5	45 - 60	300 - 600	0.1 - 0.4	5 - 15	5 - 15	250 - 500	5 - 10	5 - 30	90	50 - 200	0.1 - 0.3
PET	5 - 15	0 - 15	10	200 - 500	0.1 - 0.5	5 - 15	0 - 15	250 - 500	5 - 16	10 - 30	90 - 110	50 - 100	0.1 - 0.3
PVDF	5 - 12	5 - 15	45 - 60	150 - 500	0.1 - 0.3	5 - 15	5 - 15	250 - 500	10 - 16	5 - 20	110 - 130	150 - 300	0.1 - 0.3
E-CTFE	6 - 10	0 - 5	45 - 60	250 - 500	0.1 - 0.5	10 - 20	5 - 15	250 - 500	5 - 15	10 - 20	60 - 99	50 - 150	0.1 - 0.3
PSU - PPSU	5 - 10	0 - 5	45 - 60	250 - 400	0.2 - 0.3	5 - 15	0 - 10	250 - 500	5 - 15	10 - 20	60 - 90	30 - 990	0.1 - 0.3
PEI	5 - 10	0 - 10	45 - 60	300 - 400	0.2 - 0.3	5 - 15	0 - 10	200 - 400	5 - 15	10 - 20	60 - 90	30 - 90	0.1 - 0.4
PEEK	5 - 10	3 - 8	45 - 60	200 - 500	0.1 - 0.4	5 - 15	5 - 15	180 - 450	5 - 15	10 - 25	90 - 120	70 - 200	0.1 - 0.3
PEEK GF / mod	6 - 8	2 - 8	45 - 60	150 - 200	0.1 - 0.5	15 - 30	6 - 10	80 - 100	6	5 - 10	90 - 120	80 - 100	0.1 - 0.3

Production facility machinery

	Belt saw				Circular saw			
	1	2	4	7	1	2	4	7
PVC	30 - 40	0 - 5	1200	3	5 - 10	0 - 5	3000 - 4000	3 - 5
PP / PE	20 - 30	2 - 5	500	3 - 8	20 - 30	6 - 10	2000	3 - 8
ABS	15 - 30	0 - 5	300	2 - 8	5 - 10	0 - 5	1000	2 - 5
Acrylic	30 - 40	0 - 5	1200	3	5 - 10	0 - 5	1500 - 2000	3 - 5
PC / PPE	15 - 30	5 - 8	300 - 500	2 - 8	15 - 30	5 - 8	1800 - 2500	2 - 8
Nylon	15 - 30	0 - 5	300 - 500	2 - 8	15 - 30	0 - 8	1800 - 2500	2 - 8
Acetal	20 - 30	0 - 5	500 - 800	2 - 5	5 - 10	0 - 10	1000 - 2500	2 - 5
PET	15 - 40	0 - 8	300	2 - 8	10 - 15	0 - 15	1000 - 3000	2 - 5
PVDF	20 - 30	5 - 8	300 - 500	2 - 5	5 - 10	0 - 10	1000 - 2500	2 - 5
E-CTFE	20 - 30	2 - 8	500	2 - 8	20 - 30	6 - 10	2000	3 - 8
PSU - PPSU	15 - 30	0 - 5	500	2 - 5	15 - 30	0 - 15	2000	2 - 5
PEI	15 - 30	0 - 4	500	2 - 5	15 - 25	0 - 15	2000	2 - 5
PEEK	15 - 30	0 - 4	500 - 800	3 - 5	15 - 30	0 - 10	1800 - 2500	2 - 5
PEEK GF / mod	15 - 30	10 - 15	200 - 300	3 - 5	15 - 30	10 - 15	500 - 1500	3 - 5

Key:

- 1 = Setting angle
- 2 = Rake angle
- 3 = Recessing angle
- 4 = Cutting speed (m/mN)
- 5 = Feed (mm/U)
- 6 = Peak angle
- 7 = Tooth pitch (mm)

For more information on specific materials and processes, please contact our friendly sales team or visit our website