

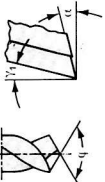
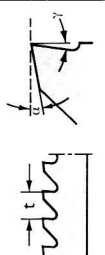




PROFESSIONAL PLASTICS

LEADING SUPPLIER OF ENGINEERED PLASTIC MATERIALS

Guidelines for Machining Ensinger Engineering Plastics

Machining Operations			Turning			Milling			Drilling and Boring			Sawing			Special Measures			
																		
Trade Name	Raw Material Group		alpha	gamma	X	V	S	alpha	gamma1	phi	V	S	alpha	gamma	V	t		
ENSICAR®	Polycarbonate		5-10	6-8	45-60	950	4-20		8-10	10-20	90	150-300	8-12	15-30	5-8	950	115-310	In the case of fluid cooling only use pure water
ENSIDUR®	ABS (Acrylonitrile-Butadiene-Styrene)		5-15	25-30	15	650-1600	8-20		8-12	10-30	90	150-650	8-12	15-30	0-5	950	75-310	In the case of fluid cooling only use pure water
VEKTON®	Cast Nylon 6		6-10	0-5	45-60	800-1600	4-20		5-15	0-20	90-120	150-500	4-12	20-30	2-5	1600	115-310	
ENSIFONE®	Polysulfone		6	0	45-60	1150-1300	4-12		3-10	10-20	90	50-250	4-12	15-30	0-4	1600	75-195	Preheat to 240°F before drilling or sawing
ENSIKEM®	PVDF (Polyvinylidene Fluoride)		10	5-8	10	500-1600	4-12		10-16	5-20	130	500-650	4-12	20-30	5-8	950	75-195	
ENSILON®	Nylon 6/6		6-10	0-5	45-60	800-1600	4-20		5-15	10-20	90	150-500	4-12	20-30	2-5	1600	115-310	
ENSITAL®	Acetal		6-8	0-5	45-60	950-1950	4-16		5-10	15-30	90	150-650	4-12	20-30	0-5	1600-2600	75-195	
ENSITEP®	PET (Polyethylene Terephthalate)		5-10	0-5	45-60	950-1300	8-16		5-10	10-20	90	150-300	8-12	15-30	5-8	950	115-310	Preheat to 240°F before drilling or sawing
DELIRIN®	Acetal Homopolymer		6-8	0-5	45-60	950-1950	4-16		5-10	15-30	90	150-650	4-12	20-30	0-5	1600-2600	75-195	
NORYL®	PPO (Polyphenylene Oxide)		5-10	6-8	45-60	950	4-20		8-10	10-20	90	150-300	8-12	15-30	5-8	950	115-310	In the case of fluid cooling only use pure water
PEEK	Polyetheretherketone		6-12	5	45-60	950	15		12	10-20	118	400	2-8	15-30	10-15	600-950	115-195	Preheat to 240°F before drilling or sawing
ULTEM®	Polyetherimide		15	5	5	1000-2000	5-20		5-10	5-20	70-90	300	5-15	15-30	5-10	3000-5000	100	In the case of fluid cooling only use pure water
SINTIMID™	Polyimide		0-5	8-10	60-75	300-600	1-20		5-15	5-20	90-120	500-600	3-5	15-30	0-5	3000-7000	80-130	Use hard-metal or diamond-tipped cutting tools
Reinforced Engineering Plastics*			6-8	2-8	45-60	500-650	4-20		6	5-10	120	250-300	4-12	15-30	10-15	600-950	115-195	Use hard-metal cutting tools