

ADVANCED INDUSTRIAL GUIDE TO PLASTIC STOCK SHAPES

Plastic Material	Shape Availability			Machinability	Service Temp	Attributes Characteristics
	Rod Dia	Available in Tubular Bar	Sheet Thickness	Rating 1-10 1=Easy	Long/Short Degrees F	
ABS	3/8 to 8	NO	1/4 to 4	1	195/210	General Purpose / Economical / Machinable / Moldable / Formable
ACETAL COPOLYMER	1/8 to 12	YES	.010 to 4	1	180/220	Machinable / Economical / Good Wear / FDA / USDA / Good Impact
ACRYLIC	1/16 to 6	YES	1/32 to 3	5	140/200	Optically Clear / Colors / Machinable / Formable / Economical
DELRIN* HOMOPOLY	1/4 to 8	YES	1/4 to 6	1	180/220	Acetal / Economical / Good Wear / FDA / USDA / Machinable
DELRIN AF	1/4 to 8	YES	1/32 to 4	1	185/300	PTFE Filled Acetal / Low Friction / Brown / Good Machinability
HYDEX 4101 & 4101L*	1/2 to 6	NO	3/8 to 4	1	245/250	PBT / PTFE Filled* / FDA-USDA / Low Friction / White / Good Wear
KYNAR / PVDF	1/4 to 10	NO	1/4 to 4	3	122/230	Fluoropolymer / Excellent Chemical Resistance / Weldable
MICARTA* C & L	1/32 to 10	YES	1/32 to 8	8	284/350	Laminate / Thermo-set / Rigid / High Strength / Electrical Insulator
MICARTA* G-9, G-10 & G-11*	1/32 to 5	YES	.005 to 5	10	284/356	Epoxy / Silicone* / Woven Fiberglass Matrix / High Strength Laminate
NORYL* EN265	3/8 to 6	NO	1/4 to 4	2	195/375	PPO & Styrene Alloy / Good Creep Resistance / Machinable
NYLON GLASS FILLED	Call	NO	Call	3	200/250	Economical / Good Wear / High Impact Strength / High Strength
NYLON TYPE 66 / EXTRUDED	1/32 to 6	YES	.010 to 3	1	200/250	Economical / Good Wear Characteristics/ High Impact Strength
NYLON TYPE 6 / MONOCAST	1 to 24	YES	1/4 to 6	2	260	Economical / Castable to Near Net Shapes / High Impact Strength
PCTFE / KEL-F	1/16 to 6	YES	.005 to 2	3	500	Chemical Resistant / Heat Resistant / High Temp / Weldable
PEEK	1/4 to 6	YES	1/4 to 4	5	480	Autoclavable / Excellent Chemical & Steam Resistant / Machinable
PEEK Standard Bearing Grade	1/4 to 6	YES	1/4 to 4	5	480	Good Limiting PV and Excellent Bearing Characteristics
PEEK 5025 Bearing Grade	1/4 to 6	YES	1/4 to 2	10	480	Highest Limiting PV of any bearing grade PEEK
PEEK / CARBON FIBER FILLED	1/4 to 6	YES	1/4 to 2	7	480	High PV / High Temp / Thermally Stable and Conductive / Rigid
POLYCARBONATE / LEXAN*	1/32 to 15	YES	1/32 to 4	3	210/265	Good Machinability / Transparent / High Impact and Rigidity
POLYETHYLENE HDPE	1/32 to 12	YES	.002 to 10	1	140/175	General Purpose / Economical / Chemical Resistant / Weldable
POLYPROPYLENE	1/4 to 16	YES	.010 to 10	1	160/230	Chemical Resistance / Weldable / Economical / Moldable
POLYSULFONE	3/16 to 6	YES	1/4 to 4	1	300/340	Autoclavable / Chemically Resistant / Heat Resistant
PTFE / 25% CARBON FILLED	1/32 to 12	YES	1/32 to 4	3	500	Filled PTFE / Low Friction / Conductive / Chemical Resistant
PTFE / 25% GLASS FILLED	1/32 to 12	YES	1/32 to 4	3	550	Filled PTFE / High V / High Temp / Chemical Resistant / Insulator
PTFE / TEFLON*	1/32 to 15	YES	1/32 to 4	3	550	High Chemical Resistance / High Temp / Low Heat Transfer
PVC / CPVC*	1/4 to 12	YES	3/32 to 4	1	150/165	Weldable / Economical / Chemical Resistant / Moldable / Hi Temp*
RULON* 641	3/16 to 12	YES	.015 to 4	3	550	Filled PTFE FDA, USDA and 3A Dairy Compliant Bearing Grade TFE
RULON* J	3/16 to 12	YES	.010 to 4	3	550	Polyimide Filled PTFE / Low Friction Bearing Grade TFE
RULON* LR / AR	3/16 to 12	YES	.010 to 4	5	550	Glass Filled PTFE / Good Strength / High V / Inert / Maroon
TECHTRON* / PPS	1/4 to 6	YES	1/4 to 4	4	425	Chemical Resistant / High Temp / High Strength / Rigid
PPS - BEARING GRADE	1/4 to 6	YES	1/4 to 4	4	425	Graphite Fill /Chemical Resistant / High Temp / High Strength & RigidPT
PTFE/ EXT & MOLDED	1/4 to 12	YES	.001 to 12	3	550	Unfilled Teflon / Inert / High Temp / Insulator / White
PTFE/ GLASS FILLED	1/4 to 12	YES	1/4 to 4	5	550	Filled PTFE / High V / High Temp / Chemical Resistant
TORLON* 4203 / 4301	3/32 to 2	NO	3/16 to 1	5	500	High Temp / High Strength / Electrical & Bearing Grade
UHMW	1/4 to 10	YES	.005 to 7	5	180	Economical / High Abrasion Resistance / Low Friction / FDA
UHMW / GLASS FILLED	1/2 to 4	NO	1/8 to 2	3	180	Low Friction / Highest Abrasion Resistance / Economical
UHMW / OIL FILLED	1/4 to 8	NO	1/8 to 2	3	180	Lowest Friction / High Abrasion Resistance / FDA / Chemical Res.
UHMW / H.O.T.	1 to 8	NO	1/4 to 4	2	260	Low Friction / Highest Heat Resistance of any UHMW / Economical
ULTEM* 1000	1/32 to 8	NO	.002 to 4	5	340	High Strength / Autoclavable / Chemical Resistance / Translucent
ULTEM* 2300	1/4 to 8	NO	1/4 to 4	8	340	Glass Filled / High Strength / Rigid / Autoclavable