MATERIAL SELECTION GUIDE

ONE STOP CUTTING SHOP

ASSORTED MATERIALS

Material	Thickness Range (mm)	Stocked by OSCS	General cut process	Comments	Common uses
Copper	0.5, .55, .7, .9, 1.2, 1.5, 1.6, 2, 3	✓*	Laser	Reddish orange soft metal, great formability due to its high ductility, excellent electrical and heat conductor, resistant to corrosion.	Architectural flashings and features, signage, decorative features.
Brass Mill Finish	0.9, 1.2, 1.6, 1.8, 2, 2.5, 3, 5, (10*)	✓*	Laser	Corrosion resistant, low friction excellent machinability.	Machine components, bearings, lock components.
Brass Bright Finish	0.5, 0.7, 0.9, 1.2, 1.6	✓*	Laser	Attractive gold like appearance, corrosion resistant.	Lock components, signage, decorative features, items that need to be highly polished.
Acetal	Up to 100mm		Water	High Strength, low friction engineering plastic with excellent wear properties and chemical resistance.	Bearings, bushings, food processing equipment, electrical components.
Carbon Fibre	Up to 100mm		Water	High strength, light weight with high chemical and temperature resistance.	Boat building, aerospace components, race car components.
Ceramic and Stone	Up to 100mm**		Water	Hard, oxidation and wear resistant, chemically stable.	Pool surrounds, decorative and protective cladding.
HDPE	Up to 100mm		Water	Versatile thermoplastic polymer.	Wide variety of common applications.
Polyethylene	Up to 100mm		Water	Highly ductile, low friction, low strength, approved for food contact, light weight.	Machine components that are in contact with food or when low weight or low friction is required.
Polycarbonate	Up to 100mm		Water	Tough stiff transparent plastic with great impact resistance and UV resistance.	Shatter proof windows, machine screens and windows.
PVC	Up to 100mm		Water	Economical versatile strong plastic that is easily bonded with solvent glue or thermo-welding.	Electrical enclosures, machine components.
Rubber	Up to 100mm		Water	Flexible elastomer, high strength and tear resistance. Good impermeability and insulation.	General sealing, protection and insulation applications.
UHMWPE	3, 5, 6, 8, 10, 12, 15, 20mm	✓*	Water	Tough durable plastic that is resistant to moisture and chemicals, machines nicely.	Wear strips, gears, machine parts.
Titanium	Up to 50mm		Water	Very high strength to weight ration and excellent corrosion resistance.	Aerospace components, race car and high end marine components.

*Check availability and price **Subject to material

Disclaimer; the information above is for general information only. For specific properties and uses contact material suppliers directly.