Prototyping properties of Plastics

ABS
*Good for structural applications
*High impact strength
*Bonds well
*Available in sheets and rods

Polycarbonate (Lexan®)
*High impact strength
*High tensile strength
*Transparent in thickness up to 1/2”
*Available in colors
*Available in sheets, rods, tubes

Polymethyl methacrylate (Plexiglas™)
*Excellent optical clarity
*Good impact strength and durability

Nylon
*Low coefficient of friction
*High strength
*Good for medical and food-processing applications
*Available in sheets, bars, rods, and tubes

Delrin
*Machines well
*Durable, excellent toughness
*Resists many solvents
*Does not bond well
*Available in sheets, bars, rods, and strips

Acrylic
*Transparent applications
*Fairly brittle
*Useful in sheets

Teflon™
*Low coefficient of friction
*High impact resistance
*Good for medical and food-processing applications
*Available in sheets and rods
Ultra high molecular weight polyethylene (UHMW)
* Low coefficient of friction
* “Poor person’s Teflon™”
* Available in sheets and rods

Polycarbonate blend ABS
* High-impact strength even at low temperature, working temperature: -40°C~120°C
* With good strength, high-impact strength, good dimension stable
* Application: Prototypes, Mechanical part, Automotive, Electronics products
* Available in sheets