

## Material information sheet

### **ABS** – Acrylonitrile – Butadiene – Styrene

A general purpose plastic. A good balance of engineering properties and economy in areas of rigidity, hardness, and toughness. Good chemical resistance and easy to fabricate.

Natural color is ivory.

### **HT-ABS** – High temperature ABS

Better performance than standard ABS. Good impact strength and electrical properties. Surface can be chrome, painted etc.

### **EPDM** – Ethylene propylene diene M-class rubber

An elastomer which is characterized by a wide range of applications.

Often used in vibration control and seals. Used as a medium for water resistance in high-voltage polymeric cable jointing installations, roofing membrane, pond liners etc.. Good heat, ozone and weather resistance.

### **HDPE** – High Density Polyethylene

Harder, stiffer and more crystalline than LDPE, but higher temperature and chemical resistance. HDPE is a low cost material for strength, toughness, moisture resistance and can be UV resistant. Some grades can be used in food contact applications when used in accordance with FDA standards.

Natural color is white.

### **LCP** – Liquid crystal polymer

Has excellent thermal stability, heat resistance and chemical resistance.

### **Nylon** – 6, 6/6, 11 and 12.

Offers great tensile strength and good impact and abrasion resistance. High temperature and chemical resistance. The very low coefficient of friction makes it suitable for wear applications. Nylon will absorb moisture to varying degrees which can affect dimensional stability as well as some mechanical properties. Some grades can be used in food contact applications when used in accordance with FDA standards. Natural color is white or ivory

**PBT** – Polybutylene Terephthalate

High heat resistance, toughness, fatigue resistance. Self-lubricating, low friction coefficient and good weatherability. Low water absorption. Often used as an insulator in the electrical and electronics industries. Slightly lower strength and rigidity than PET. Additives can be used to improve both UV and flammability properties.

**PC** – Polycarbonate

Maintains a good impact resistance and very high clarity. Has a maximum rigidity available as well as excellent outdoor weathering. Good dimensional stability and fairly high continuous use temperature over 250 degrees F. Natural color is clear.

**PMMA** – Polymethyl methacrylate (Acrylic)

Often used as an alternative to glass. Often preferred to PC because of its moderate properties, easy handling and pricing and low cost. Can be brittle and is not good under impact force.

**PP** – Polypropylene

Good tensile properties and stiffness at service temperatures between 260F–270F. Good impact strength but not as good as HDPE. PP is a low cost, good chemical and abrasion resistant homopolymer. Resistant to stress cracking but poor in weather. Some grades can be used in food contact applications when used in accordance with FDA standards. Natural color is off-white translucent

**PU** – Polyurethane (Both ether and ester based)

Available in soft grades ( 60 durometer on a Shore A scale) to hard grades (99 durometer on a Shore A scale). PU is a versatile elastomer with its range of hardness and properties such as tensile and tear strength, good abrasion resistance, and good impact resistance from the harder grades. Ester TPU's are tougher than Ether. They are good in applications involving grease, but will degrade in water. Ethers are good in conditions involving water, but less resistant to chemicals and oils. Excellent cut resistance. Some grades can be used in food contact applications when used in accordance with FDA standards. Natural color is transparent to translucent.

**PVC** – Polyvinyl chloride (flexible and Rigid)

PVC is good in weather / UV resistance. Wide range of flexibility obtained by use of plasticizer. Good dimensional stability and nonflammable. Rigid PVC is very corrosion



resistant but has poor abrasion resistance. Limited thermal capability. Some grades can be used in food contact applications when used in accordance with FDA standards. Natural color is clear to bluish translucent.