Materials Guide

Acetal

High mechanical strength and rigidity. Excellent fatigue resistance and dimensional stability. Low moisture absorption. Resistant to solvents and chemicals.

Limitation: Not suitable for prolonged use in steam, hot water or strong acids.

Uses: Electrical terminal blocks, gas regulator housing, watch and clock gears etc.

Acrylic

Can be clear, opaque or coloured. Ideal for screen printing.

Uses: Advertising, displays, light diffusers, optical lenses and windows.

Nitrile Rubber

Uses: 'O' rings, seals, diaphragms, pressure seals on valves etc.

Polycarbonate

Tough, rigid, transparent. Dimensionally stable. High impact strength. Good electrical properties. High heat resistance.

Uses: Laboratory equipment. Computer tape cases. Electrical connectors. Propeller blades. Impeller pumps.

Polyethylene

Can vary from flexible (low density) to rigid (high density). Good chemical resistance, but fairly low softening point.

Uses: Buckets and bowls. Toys, caps, dust covers etc.s

Polyester

Low moisture absorption. Good chemical resistance. Excellent electrical properties. Dimensional stability.

Uses: Integrated circuit carriers and sockets. Terminal blocks, pump impellers, gears, bearings, distributor caps etc.

Polypropylene

Tensile strength about half Zytel Nylon, but it is tough and resilient to most chemicals.

Uses: Wheels, bottle crates, chairs, box handles.

Polystyrene

Can be either general purpose or high impact for increased toughness.

Uses: Model kits, cutlery, toys. Disposable items.

Zytel Nylon

Tough at high and low temperatures and will withstand repeated impact. Retention of stiffness and tensile properties at high temperatures. Resistance to abrasion, solvents, oils, gasoline, natural lubricity, excellent frictional and wear characteristics.

Uses: Gears, electrical coil forms, cable ties, fasteners, bearings.