AD AutoDrill

800-871-5022

More information can be found at www.Drill-HQ.com.

Plastics Selection Chart

Common Name	Properties	Uses	Common Forms	Cost
Rigit PVC (poly vinyl chloride)	Wide range of colors. Stiff, hard. Tough at room temperature. Can be used outdoors if suitably stabilized. Light weight. Very good acid and alkali resistance. Particularly good for fabricating.	Pipes, guttering and fittings. Bottles and containers. Curtain rails. Roofing sheets. Shoe soles. Brush bristles.	Powders, Pastes. Liquids. Sheets. Wide range of colors.	Medium
Polystyrene (high impact polystyrene)	Not tough. Comes in a wide range of colors.	Good for vacuum forming. Join using a liquid polystyrene cement.	Shell forms for containers, model boats and model cars.	Low
ABS (acrylonitrile butadienestyrene)	Stiff, strong and tough. Scratches easily. Comes in a wide range of colors.	Frameworks and mechanical parts, links, cams and wheels.	Easy to cut and trim using liquid solvent cement.	Medium
Nylon (Polyamide)	Hard, tough, rigid, creep resistant. Good bearing surface. Self-lubricating. Resistant to oil fuels and chemicals. High melting point. Very resilient. Wear and friction resistant.	Gear Wheels, bearings, automotive, agricultural, general communications and telecommunications equipment parts. Power tool casings. Curtain rail fittings, packaging, film, clothing, combs.	Powder, granules, chips, rods, tubes, sheet, extruded sections. Usually white or cream. Other colors including black obtainable.	High

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Polyester resin (Unsaturated polyester resin)	Good electrical insulator, good heat resistance. Stiff, hard, brittle alone but strong and resilient when laminated. Resistant to ultraviolet light for outside use. Strongly exothermic, this can lead to cracking. Contracts on curing.	GRP boats, car bodies. Chair shells. Ducting, garden furniture, e.t.c. Translucent panels for building. Encapsulating and embedding castings.	Liquids. Pastes.	Medium
Low density polythene (Low density polyethylene)	Wide range of colors. Tough. Good chemical resistance. Good elecrical insulator. Flexible, soft. Fades unless light stabilized. Attracts dust unless anti-static.	Squeeze bottles and toys. Plastic sacks and sheets. Packaging film. Telecommunications cable insulation. TV aerial lead insulation.	Powders. Granules. Films. Sheets. Wide range of colors.	Medium
High density polystyrene (High density polyethylene)	Wide range of colors. Fairly stiff and hard. Stiffness and softening point both increase with density. Can be sterilized. Good chemical resistance. High impact and shock resistant. Fades unless light stabilized.	Milk crates. Bottles, barrels, tanks, pipes, chemical pumps, machine parts (e.g. gear wheels). Houseware (e.g. buckets, bowls)	Powders, granules, films. Sheets. Wide range of colors.	Medium

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Plastics Selection Chart

Common Name	Properties	Uses	Common Forms	Cost
Plasticized PVC (polyvinyl chloride)	Wide range of colors. Soft, flexible. Good eletrical insulator.	Leathercloth, suitcases, tabletops coverings, sealing compounds, underseal. Dip coatings. Hosepipes. Electrical wiring insulation. Wall coverings (vinyl wallpapers) Floor coverings.	Powders, pastes. Liquids. Sheets. Wide range of colors.	Medium
Expanded polystyrene (Expanded polyphenylethane)	Very buoyant, light weight. Absorbs shocks. Very good sound and heat resistor. Crumbles easily. Burns readily unless flame proofed.	Sound insulation. Heat resistant packaging.	Sheets, slabs, beads. Usually white.	Low
Acrylic (Polymethyl methacrylate)	Stiff, hard glass clear. Very durable outdoors. Easily machined, cemented and polished. Good electrical insulator. Safe with food. Ten times more impact resistance than glass. Splinters easily. Scratches easily.	Light units and illuminated signs. Watch and clock glasses. Record player lids. Simple lenses. Aircraft canoplex and windows. Car rearlight units. Skylights. Furniture. Baths. Perspex sheet. Cladding for buildings.	Rods, tubes which are usually clear. Translucent and opaque. Comes in a wide range of colors.	Medium