








American  
Plastics  
Council®

## Plastic Packaging Resins

| Codes  | Descriptions   | Properties   | Product Applications  | Products With Recycled Content  |
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| <br><b>PETE</b> | <p><b>Polyethylene Terephthalate (PET, PETE).</b> PET is clear, tough, and has good gas and moisture barrier properties. Commonly used in soft drink bottles and many injection molded consumer product containers. Other applications include strapping and both food and non-food containers. Cleaned, recycled PET flakes and pellets are in great demand for spinning fiber for carpet yarns, producing fiberfill and geotextiles. Nickname: Polyester</p> | <p>Clarity, strength, toughness, barrier to gas and moisture, resistance to heat</p> | <p>Plastic soft drink, water, sports drink, beer, mouthwash, catsup and salad dressing bottles. Peanut butter, pickle, jelly and jam jars. Ovenable film and ovenable prepared food trays</p> | <p>Fiber, tote bags, clothing, film and sheet, food and beverage containers, carpet, strapping, fleece wear, luggage and bottles.</p> |

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|    | <p><b>High Density Polyethylene (HDPE).</b><br/>         HDPE is used to make bottles for milk, juice, water and laundry products. Unpigmented bottles are translucent, have good barrier properties and stiffness, and are well suited to packaging products with a short shelf life such as milk. Because HDPE has good chemical resistance, it is used for packaging many household and industrial chemicals such as detergents and bleach. Pigmented HDPE bottles have better stress crack resistance than unpigmented HDPE bottles.</p> | <p>Stiffness, strength, toughness, resistance to chemicals and moisture, permeability to gas, ease of processing, and ease of forming.</p> | <p>Milk, water, juice, cosmetic, shampoo, dish and laundry detergent bottles; yogurt and margarine tubs; cereal box liners; grocery, trash and retail bags.</p>  | <p>Liquid laundry detergent, shampoo, conditioner and motor oil bottles; pipe, buckets, crates, flower pots, garden edging, film and sheet, recycling bins, benches, dog houses, plastic lumber, floor tiles, picnic tables, fencing.</p> |
|  | <p><b>Polyvinyl Chloride (PVC/Vinyl).</b><br/>         In addition to its stable physical properties, PVC has good chemical resistance, weatherability, flow characteristics and stable electrical properties. The diverse slate of vinyl products can be broadly divided into rigid and flexible materials. Bottles and packaging sheet are major rigid markets, but it</p>   | <p>Versatility, clarity, ease of blending, strength, toughness, resistance to grease, oil and chemicals.</p>                               | <p>Clear food and non-food packaging, medical tubing, wire and cable insulation, film and sheet, construction products such as pipes, fittings, siding, floor tiles, carpet backing and window frames.</p> | <p>Packaging, loose-leaf binders, decking, paneling, gutters, mud flaps, film and sheet, floor tiles and mats, resilient flooring, cassette trays, electrical boxes, cables, traffic cones, garden hose, mobile home skirting.</p>        |

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|   | <p>is also widely used in the construction market for pipes and fittings, siding, carpet backing and windows frames. Flexible vinyl is used in wire and cable insulation, film and sheet, floor coverings, synthetic leather products, blood bags, medical tubing and other applications.</p>   |  |   |   |
|    | <p><b>Low Density Polyethylene (LDPE).</b><br/>Used predominately in film applications due to its toughness, flexibility and relative transparency, making it popular for use in applications where heat sealing is necessary. LDPE is also used to manufacture some flexible lids and bottles and it is used in wire and cable applications.</p> | <p>Ease of processing, strength, toughness, flexibility, ease of sealing, barrier to moisture.</p>         | <p>Dry cleaning, bread and frozen food bags, squeezable bottles, e.g. honey, mustard.</p> | <p>Shipping envelopes, garbage can liners, floor tile, furniture, film and sheet, compost bins, paneling, trash cans, landscape timber, lumber</p>                |
|  | <p><b>Polypropylene (PP).</b><br/>Polypropylene has good chemical resistance, is strong, and has a high melting point making it good for hot-fill liquids. PP is found in flexible and rigid packaging to fibers and large molded parts for automotive and consumer products.</p>   | <p>Strength, toughness, resistance to heat, chemicals, grease and oil, versatile, barrier to moisture.</p> | <p>Catsup bottles, yogurt containers and margarine tubs, medicine bottles</p>             | <p>Automobile battery cases, signal lights, battery cables, brooms, brushes, ice scrapers, oil funnels, bicycle racks, rakes, bins, pallets, sheeting, trays.</p> |

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|  | <p><b>Polystyrene (PS).</b><br/>Polystyrene is a versatile plastic that can be rigid or foamed. General purpose polystyrene is clear, hard and brittle. It has a relatively low melting point. Typical applications include protective packaging, containers, lids, cups, bottles and trays.</p> | <p>Versatility, insulation, clarity, easily formed</p> | <p>Compact disc jackets, food service applications, grocery store meat trays, egg cartons, aspirin bottles, cups, plates, cutlery.</p> | <p>Thermometers, light switch plates, thermal insulation, egg cartons, vents, desk trays, rulers, license plate frames, foam packing, foam plates, cups, utensils</p> |
|  | <p><b>Other.</b> Use of this code indicates that the package in question is made with a resin other than the six listed above, or is made of more than one resin listed above, and used in a multi-layer combination.</p>  | <p>Dependent on resin or combination of resins.</p>    | <p>Three and five gallon reusable water bottles, some citrus juice and catsup bottles.</p>   | <p>Bottles, plastic lumber applications.</p>  |

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