








Plastic Resin Codes for Recycling Purposes

The U.S. Society of the Plastics Industry, Inc. (SPI) introduced its resin identification coding system in 1988. The Plastic Recyclers, who initially sought this coding system, saw two opportunities 1. To meet the market pressures of reducing waste to land-fill to save costs and 2. the opportunity to provide a reliable material supply for the growing recycled resin market.

	DESCRIPTION	PROPERTIES	COMMON USES	RECYCLED TO
 PETE	PET / PETE Polyethylene Teraphthalate Polyester	<ul style="list-style-type: none"> • Clear, tough • Optically smooth surfaces • Good gas & moisture barrier properties • Oxygen, water, carbon dioxide • High impact capability and shatter resistance • Good chemical resistance • Capability for hot filling 	<ul style="list-style-type: none"> • Poly bags • Ovenable film & microwavable trays • Soft drink bottles • Food jars • Biscuit trays • Clothing • Textiles & carpets 	<ul style="list-style-type: none"> • Film & sheet • Strapping • Tote bags • Fibres for carpet • Pillow & sleeping bag filling • Clothing • Soft drink bottles
 HDPE	HDPE High Density Polyethylene	<ul style="list-style-type: none"> • Higher tensile strength • Translucent or coloured opaque • Good barrier properties • Good chemical resistance • Stiffness • Pigmented bottles better stress crack resistance than unpigmented 	<ul style="list-style-type: none"> • Grocery bags • General plain & printed bags • Waste Bags • Construction Films • Drum & Box Liners • Sheeting • Biodegradable Bags • Pallet slip sheets • Milk bottles/distilled water bottles • Detergent bottles • Reusable shipping containers • Rigid agricultural pipe • Drink crates / buckets 	<ul style="list-style-type: none"> • Recycling bins • Compost bins • Buckets • Detergent containers • Fencing posts • Plastic pipes • Bottles for non-food items • Flower pots & garden edging
 V	V / PVC / PVC-U / PVC-P Vinyl Polyvinyl Chloride Unplasticised Polyvinyl Chloride Plasticised Polyvinyl Chloride	<ul style="list-style-type: none"> • Good chemical resistance • Weatherability • High Impact strength • Brilliant clarity • Resistance to grease, oil & chemicals 	<ul style="list-style-type: none"> • Blister packs • Packing tape • Silage tape • Vegetable oil bottles • Garden hose • Cable sheathing • Binders • Cosmetic containers 	<ul style="list-style-type: none"> • Packaging • Cables • Mats • Flooring
 LDPE	LDPE Low Density Polyethylene	<ul style="list-style-type: none"> • Excellent resistance to acids, bases and vegetable oils • Good heat sealing properties due to toughness, flexibility and relative transparency 	<ul style="list-style-type: none"> • Self Sealing / Grip Seal Bags • Heavy Duty Bags • Bubble Bags & Wrap • Pouches & Tubing • Form Fill Seal Films • Static Bags • Barrier Tapes • Pallet Hoods/Covers • Construction Films • Drum and Box Liners • Centre Fold Sheets • Biodegradable bags • Shrink wrap & stretch film • Dry cleaning bags • Bread bags • Rubbish bags • Plastic food wrap • Pallet sheets • Mulch films • Squeezable bottles 	<ul style="list-style-type: none"> • Rubbish bin liners • Pallet sheets • Film & sheet • Shipping envelopes • Floor tiles / panels • Compost bins • Rubbish bins

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	DESCRIPTION	PROPERTIES	COMMON USES	RECYCLED TO
	PP Polypropylene	<ul style="list-style-type: none"> • Good chemical resistance • Strong with high melting point • Excellent optical clarity • Low moisture vapour transmission 	<ul style="list-style-type: none"> • Packing tape • Pallet sheets • Dairy spread tubs • Cereal box liners • Trays • Medicine bottles • Fibres & textiles 	<ul style="list-style-type: none"> • Pallet sheets • Pegs • Bins • Pipes • Car battery cases • Trays • Plastic garden tools
	PS / EPS Polystyrene Expanded Polystyrene	<ul style="list-style-type: none"> • Excellent moisture barrier • Excellent optical clarity • Significant stiffness in both foamed and rigid forms • Low Thermal conductivity • Excellent Insulation properties 	<ul style="list-style-type: none"> • Fish & transit boxes • Loose fill • Foam packaging • Yogurt pots • Fast food containers • Vitamin bottles • Plastic cutlery • Egg cartons • CD cases • Hot drink cups 	<ul style="list-style-type: none"> • Thermal insulation • EPS packaging • Coat hangers • Whiteware • Stationery trays • Camera casings
	Other Types of Plastics Other plastics like Nylon Products made from multiple layers of different plastics	<ul style="list-style-type: none"> • Dependent on combination of resins 	<ul style="list-style-type: none"> • Oven baking bags • Barrier layers • Construction films • Metallised Bags • Suspension & Retention Packaging • ESD Bags • Lightweight Mailers • Composite packaging - nylon and polythene • Car & appliance parts • Plastic timber • Large reusable water bottles 	<ul style="list-style-type: none"> • Car parts • Concrete aggregate • Plastic timber • Bottles

This document is a guideline to the Resin Codes, IPS makes no warranty, express or implied, regarding the accuracy or completeness of the information provided herein.