Plastipak Italia Preforme S.r.l.
Società Unipersonale

October 2012	Polyethylene Terephthalate (PET) *PPK 100*	Sales Data Sheet

DESCRIPTION

PPK 100 resin is a food grade PET copolymer resin based on terephthalic acid. Its high clarity and sparkle make it well suited for the production of bottles and other containers by conventional single and two stage processing machines. It is a high molecular weight polymer for general use in manufacturing containers.
The following table provides the Parameters that characterise the grade. Some Parameters are shown with values which are specified to fall within limits as shown. Other Parameters are shown as a single value which we regard as typical of the grade. Minor differences around this typical value will not detract from the performance of the product. All Parameters are measured, under laboratory conditions, by the analytical method shown. Different methods or conditions of analysis may give rise to different values. Purchased material may be accompanied by a Certificate of Analysis or other document, confirming that the product is within specified limits and is consistent with other the other values for the stated Parameters.

Parameter	Unit	Value	Limits	Test Method
Intrinsic viscosity (I.V.)	dl/gr.	0.97	+/- 0.02	PPK-51/ ASTM D4603:03
Acetaldehyde content	ppm	1	Max	PPK-49**
Colour (b value)	-	+1	Max.	PPK-60**
Melting point	°C	Max 255	-	PPK-59**
Water content	% m/m	0.4*	Max	PPK-58**
Mass of 100 chips	g	2	Max	PPK-55**

* Relate to Amorphous Polymer
** Internal method

REGULATORY STATUS

PPK 100 resin is suitable for the manufacture of food packaging articles but specific regulations differ from country to country.

PHYSICAL - CHEMICAL PROPERTIES

Bottles made from **PPK 100** resin have good dimensional stability and low creep, high optical clarity and glossing, good barrier properties to oxygen, carbon dioxide and moisture. These bottles also have high chemical resistance to alcohol, oils, fats and dilute aqueous solutions of minerals acids, bases, salts and soaps.
PPK 100 resin is available in natural granular form, bulk or packed in big bags.

IMPORTANT ASPECTS OF USE IN PROCESSING

- **Drying** Thermoplastic polyesters such as **PPK 100** resin can undergo hydrolysis if moisture is not eliminated leading to a decrease in molecular weight and loss in mechanical properties of the bottle, particularly top load performance and impact strength. A level of 0.003% (30ppm) or less, is required prior to final processing. Drying is best accomplished in a continuous high heat dehumidifying type air hopper dryer with a regenerative desiccant bed using -20 °F max. (-29 °C max.) dew point air. Typical drying conditions are an air temperature of 175°C (350°F), 4-6 hours residence time and a minimum air flow rate of 1.0 ft^3 per minute per pound of polymer per hour.

SAFETY ASPECTS

It is strongly recommended to read carefully the **Product Safety Data Sheet**.

- **Handling** **PPK 100** resin presents no toxic hazards, either from skin contact or inhalation, under normal conditions. Contact with melted polymer should be avoided. Product delivered in bags must not be stacked.
- **Fire precautions** In common with most other organic polymers, PET will burn. They are difficult to ignite, but are defined as 'combustible' but not 'highly inflammable'. Reasonable precautions should be taken to ensure absence of sources of ignition in warehouses and storage areas. If large quantities are stored, normal good housekeeping should be enforced, including freedom from dust, uncluttered access ways, sprinkler system etc.

WARRANTY

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