

# PoliPET<sup>™</sup> 76W

**PoliPET<sup>™</sup>76W** is a low molecular weight PET resin suitable for the production of bottles and other containers, of medium mechanical strength requirements and minimum potential for taint of acetaldehyde. It is suitable for the manufacturing of food packaging articles under local regulation, EU directives and FDA requirements. It can be used by conventional single and two stage processing machines, having low crystallization rate and good heat up properties. It presents excellent consistency and stability in injection molding, allowing for special settings for achieving minimum degradation and extra-low acetaldehyde generation, at maximum productivity. The special settings refer to low plasticization temperatures (270-275 °C), low injection pressure and temperatures (<280 °C), low back pressure (about 20 bars) and fast cycle time.

While this resin has been specifically designed for the production of mineral water, beverage, food and other liquid containers, it is also perfectly suitable for thermoforming applications.

## Specifications

Property	Test Method	Unit	Value
Intrinsic Viscosity	ISO 1628	dl/g	0.76 ± 0.02
Colour	ASTM 6290		b* ≤1
			L* ≥85
Acetaldehyde	ASTM F2013	ppm	≤1

## Typical Properties

Specific Density Crystalline		g/cm <sup>3</sup>	> 1.39
Crystallinity		%	> 48
Moisture		%wt	≤ 0.20
Bulk Density		kg/m <sup>3</sup>	840
Weight of 20 Chip		mg	320
Melting Point		°C	240 - 250
Typical Molding Temperature		°C	270 - 290
Drying Conditions	Temperature	°C	165 - 175
	Time	h	5 - 6

All properties are measured under laboratory conditions by the analytical method shown. Different methods or conditions of analysis may give different values. Purchased material will be accompanied by a Certificate or Analysis, with representative average values of specified properties.

## Food Contact Statement

**PoliPET<sup>™</sup> 76W** complies with the composition of requirements of the Regulation (EC) No 10/2011 and the EU Directive on Packaging and Packaging Waste (94/62/EC) and its amendments.

## Packaging

Bigbag: 1100 kg. net  
Bulk

## Storage Condition

Avoid direct sun light.  
Keep in cool and dry place

# PoliPET™ 80GP

**PoliPET™ 80GP** is a copolymer of PET (Polyethylene-Terephthalate), delivered in resin pellets. It is suitable for stretch blow molding in one or two stage processes, extrusion and film applications. Specially recommended for general uses in which the main requirement is the balance of optical and mechanical properties. It is particularly recommended for still or carbonated water, soft drinks, edible oil, food packaging and spirit drinks.

## Specifications

Property	Test Method	Unit	Value
Intrinsic Viscosity	ISO 1628	dl/g	0.80 ± 0.02
Colour	ASTM 6290		b* ≤1
			L* ≥85
Acetaldehyde	ASTM F2013	ppm	≤1

## Typical Properties

Specific Density Crystalline		g/cm <sup>3</sup>	> 1.39
Crystallinity		%	> 48
Moisture		%wt	≤ 0.20
Bulk Density		kg/m <sup>3</sup>	840
Weight of 20 Chip		mg	320
Melting Point		°C	240 - 250
Typical Molding Temperature		°C	270 - 290
Drying Conditions	Temperature	°C	165 - 175
	Time	h	5 - 6

All properties are measured under laboratory conditions by the analytical method shown. Different methods or conditions of analysis may give different values. Purchased material will be accompanied by a Certificate or Analysis, with representative average values of specified properties.

## Food Contact Statement

**PoliPET™ 80GP** complies with the composition of requirements of the Regulation (EC) No 10/2011 and the EU Directive on Packaging and Packaging Waste (94/62/EC) and its amendments.

## Packaging

Bigbag: 1100 kg. net  
Bulk

## Storage Condition

Avoid direct sun light.  
Keep in cool and dry place

# PoliPET<sup>TM</sup> 84SD

**PoliPET<sup>TM</sup> 84SD** is a high molecular weight PET resin suitable for the production of bottles and other containers, of increased mechanical strength requirements. It meets local regulation, EU directives and FDA requirements. It can be used by conventional single and two stage processing machines, having low crystallization rate and good heat up properties. It presents excellent consistency and stability in injection molding, allowing for the optimum settings for achieving minimum degradation and acetaldehyde generation, at maximum productivity. This leads to the manufacturing of bottles with excellent dimensional stability, high clarity and sparkle, high strength and toughness and with good barrier properties. While this resin has been specifically designed for the production of beverage, food and other liquid containers, it is also perfectly suitable for thermoforming applications.

## Specifications

Property	Test Method	Unit	Value
Intrinsic Viscosity	ISO 1628	dl/g	0.84 ± 0.02
Colour	ASTM 6290		b* ≤1
			L* ≥85
Acetaldehyde	ASTM F2013	ppm	≤1

## Typical Properties

Specific Density Crystalline		g/cm <sup>3</sup>	> 1.39
Crystallinity		%	> 48
Moisture		%wt	≤ 0.20
Bulk Density		kg/m <sup>3</sup>	840
Weight of 20 Chip		mg	320
Melting Point		°C	240 - 250
Typical Molding Temperature		°C	270 - 290
Drying Conditions	Temperature	°C	165 - 175
	Time	h	5 - 6

All properties are measured under laboratory conditions by the analytical method shown. Different methods or conditions of analysis may give different values. Purchased material will be accompanied by a Certificate or Analysis, with representative average values of specified properties.

## Food Contact Statement

**PoliPET<sup>TM</sup> 84SD** complies with the composition of requirements of the Regulation (EC) No 10/2011 and the EU Directive on Packaging and Packaging Waste (94/62/EC) and its amendments.

## Packaging

Bigbag: 1100 kg. net  
Bulk

## Storage Condition

Avoid direct sun light.  
Keep in cool and dry place

# PoliPET<sup>TM</sup> 84F

**PoliPET<sup>TM</sup> 84F** is a high molecular weight PET resin suitable for the production of bottles and other containers, of increased mechanical strength requirements especially with thick wall design. It is suitable for the manufacturing of food packaging articles under local regulation, EU directives and FDA requirements. It can be used by conventional single and two stage processing machines, having low crystallization rate and enhanced heat up properties. It presents excellent consistency and stability in injection molding, allowing for the optimum settings for achieving minimum degradation and acetaldehyde generation, at maximum productivity. This leads to the manufacturing of bottles with excellent dimensional stability, high clarity, high strength and toughness and with good barrier properties.

**PoliPET<sup>TM</sup> 84F** is designed with enhanced ability to absorb infrared radiation produced by lamps, which are used in most high speed blow molding machine. The enhanced energy absorption can result in improved temperature control which in turn can lead to improved material distribution and bottle properties. This improvement may also lead to increased machine output or reduced energy consumption

## Specifications

Property	Test Method	Unit	Value
Intrinsic Viscosity	ISO 1628	dl/g	0.84 ± 0.02
Colour	ASTM 6290		b* ≤1
			L* ≥78
Acetaldehyde	ASTM F2013	ppm	≤1

## Typical Properties

Specific Density Crystalline		g/cm <sup>3</sup>	> 1.39
Crystallinity		%	> 48
Moisture		%wt	≤ 0.20
Bulk Density		kg/m <sup>3</sup>	840
Weight of 20 Chip		mg	320
Melting Point		°C	240 - 250
Typical Molding Temperature		°C	270 - 290
Drying Conditions	Temperature	°C	165 - 175
	Time	h	5 - 6

All properties are measured under laboratory conditions by the analytical method shown. Different methods or conditions of analysis may give different values. Purchased material will be accompanied by a Certificate or Analysis, with representative average values of specified properties.

### Food Contact Statement

**PoliPET<sup>TM</sup> 84F** complies with the composition of requirements of the Regulation (EC) No 10/2011 and the EU Directive on Packaging and Packaging Waste (94/62/EC) and its amendments.

### Packaging

Bigbag: 1100 kg. net

Bulk

### Storage Condition

Avoid direct sun light.

Keep in cool and dry place

# Material Safety Data Sheet

## Polyethylene Terephthalate

### 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING

#### 1.1 Product identifier

**Product Name:**

Polisan Hellas Polyethylene terephthalate resin

**CAS Number:** 25038-59-9

**Synonyms:**

Poly(oxy-1,2-ethanediyloxycarbonyl-1,4-phenylenecarbonyl)

**Molecular formula:** (C<sub>10</sub>H<sub>8</sub>O<sub>4</sub>)<sub>n</sub>

#### 1.2 Identified use (not exhaustive list)

Molding processes.  
Extrusion processes.

#### Recommended restrictions

Do not use in medical applications involving permanent implantation in the human body.

#### 1.3 Company / Producer

Polisan Hellas S.A  
Industrial & Commercial Company  
of Pet Resin Production & Preforms  
Head Office: 15 Maiandrou Str., 11528 Athens-Greece  
Volos Branch : B' Industrial Area of Volos 37 500 Volos, Greece

#### 1.4 Emergency Number

(+30)-24250-22250

### 2: HAZARDS IDENTIFICATION

#### 2.1 Classification of substance and mixture

Not a hazardous substance or preparation according to Regulation (EC) No 1272/2008 (CLP).

The hazards of this product are associated mainly with its processing.

Resin particles, like other inert materials, are mechanically irritating to eyes. Molten polymer will adhere to the skin and can cause severe burn.

#### 2.2 Labeling

### 3: COMPOSITION/INFORMATION ON INGREDIENT

#### 3.1- Composition / information

**Chemical name of the substance:**

Polyethylene terephthalate

# Material Safety Data Sheet

## Polyethylene Terephthalate

Typical composition:

Chemical Name	CAS No	Concentration (%)
Polyethylene terephthalate	25038-59-9	100

### 4: FIRST AID MEASURES

#### 4.1 First aid measures

**Inhalation:** Move to fresh air in case of accidental inhalation of dust or fumes from overheating of combustion. Consult a physician after significant exposure.

**Skin contact:** Cool skin rapidly with cold water after contact with molten polymer. Do not peel polymer from the skin. Obtain medical attention.

**Eye contact:** Rinse with plenty of water

**Ingestion:** Treat symptomatically

#### 4.2 Main symptoms and effects acute and delayed

Particles / dust are mechanically irritating to eyes.

Molten polymer will adhere to the skin and can cause severe burn.

#### 4.3 Advice to physicians

### 5: FIREFIGHTING MEASURES

Low fire hazard.

Combustion will evolve irritant vapours.

At complete combustion, the major products formed are carbon dioxide and water.

#### Extinguishing media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Water spray, dry chemical.

Special firefighting procedures: wear self contained breathing apparatus and protective clothing.

#### Hazardous combustion products:

Carbon dioxide, carbon monoxide

#### Unusual fire and explosion hazards:

Powdered material may form explosive dust-air mixture.

High voltage static electricity build-up and discharge must be avoided when significant quantities of powdered material are present.

**Further information:** Solid polymer burns only with difficulty (IEC 60695-11-10:V0-V1-V2)

### 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions

Personal precautions: None.

Personal protection: None in normal use

# Material Safety Data Sheet

## Polyethylene Terephthalate

### 6.2 Environmental precautions

Environmental precautions: No special environmental precautions required.

### 6.3 Containment and cleaning up

Methods for cleaning up: Sweep-up to prevent slipping hazard. In case of high dust deposit use a vacuum cleaner.

## 7: HANDLING AND STORAGE

### 7.1 Handling

Advice on safe handling: None under normal processing.

The solid polymer can only be burned with difficulty  
Provide exhaust ventilation at places where dust is formed.  
Take precautionary measures against static discharges.

### 7.2 Storage

Requirements for storage area containers: Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container

Advice on common storage: No materials to be specially mentioned.

## 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

In case of dust, concentration must be below  $10\text{mg}/\text{m}^3$  (TLV-TWA 8h)

### 8.2 Personal protection

Respiratory protection: In the case of breathable dust and/or fumes, use mask and/or self-contained breathing apparatus.

Skin protection: None required; however use of protective gloves/clothing is good industrial practice. Wear thermal insulating gloves when handling hot masses.

Eye protection: None required; however use of safety glasses is good industrial practice. Wear face shield when handling hot masses

Hygiene measures: Wash hands before breaks and at the end of workday

General precautions for all: Do not breathe fumes evolved

## 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Physical and chemical properties

#### Appearance

Form: Granular

Colour: White

Odour: Slight

# Material Safety Data Sheet

## Polyethylene Terephthalate

### Safety data

Melting point range: 230 - 265 °C

Ignition temperature: >500 °C

Specific gravity (water =1): >1

Bulk density: 760 - 840 kg/m<sup>3</sup>

Water solubility: Insoluble

Octanol / water Partition coefficient: Not applicable

pH: Not applicable

Explosive limits: Not available

Flash point: Not applicable

Autoignition temperature: Not available

### 9.2 Other information

None.

## 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under normal use condition

### 10.2 Chemical stability

Stable

### 10.3 Possible hazardous reactions

Hazardous decomposition (combustion) products: carbon dioxide; carbon monoxide; acetaldehydes; other harmful products

Hazardous reactions: stable under recommended storage conditions

### 10.4 Conditions to avoid

Conditions to avoid: avoid dust concentration

### 10.5 Materials to avoid

Acetic anhydride

Benzene

Chloroform

Acetone

Dimethylformamide

Chromic acid

## 11: TOXICOLOGICAL INFORMATION

### 11.1 Toxicological information

Acute oral toxicity: No data available

Skin irritation: Pellets may cause skin irritation

Mutagenicity: Not considered to be a mutagenic hazard

Carcinogenicity: Not a carcinogen

Human effects: Not available

# **Material Safety Data Sheet**

## **Polyethylene Terephthalate**

### **12. ENVIRONMENTAL INFORMATION**

#### **12.1 Toxicity**

This product has no known eco-toxicological effects.

### **13. DISPOSAL CONSIDERATIONS**

#### **13.1 Method for the treatment of waste**

**Product:** like most thermoplastics the product can be recycled.

Recycling when possible is preferred to disposal or incineration.

Can be land filled or incinerated, when in compliance with local regulations.

**Contaminated packaging:** empty containers should be taken for local recycling or waste disposal.

### **14. TRANSPORT INFORMATION**

#### **14.1 UN Number**

Not classified as dangerous in the meaning of transport regulations.

### **15. REGULATORY INFORMATION**

#### **15.1 Regulation and legislation in the field of safety, health and environment specific**

The product is non-hazardous in accordance with Regulation (EC) 1272/2008 (CLP).

#### **15.2 Chemical safety assessment (CSA)**

Not applicable

### **16. OTHER INFORMATION**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designed and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

For further information please contact Polisan Hellas:

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