



# PRODUCT DATA SHEET

## Recycled HDPE

### DESCRIPTION

Polymer: Recycled high-density polyethylene (R-HDPE)

Source: Bottles, containers, industrial scrap

Color: White, black or colored

Additives: Stabilizers, pigments, antioxidants



### APPLICATIONS

Injection molded parts

Pipes, profiles, sheets

Roto molding, extrusion applications

### SPECIAL FEATURES

Good chemical resistance, toughness Lower cost,  
sustainable alternative Slightly lower mechanical  
properties vs virgin

### PHYSICAL PROPERTIES

#### Property

Density

Melt Flow Rate (190°C/2.16kg)

Flexural Modulus

Elongation at Break

Charpy Impact Strength, notched (23°C)

#### Typical Value

0.94 – 0.96 g/cm<sup>3</sup>

4 – 8 g/10 min

950 – 1,050 MPa

> 200%

10 – 20 kJ/m<sup>2</sup>

#### Test Method

ISO 1183

ISO 1133

ISO 178

ISO 527

ISO 179/1eA

- Data should not be used for specification work.
- Measured on injection moulded specimens acc. to ISO 1873-2.
- Measured on injection moulded specimens, conditioned at 23°C and 50% Rel. Hum.



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Made Egypt

## PROCESSING CONDITIONS

is easy to process with standard injection moulding machines

Following parameters should be used as guidelines:

Drying: not needed (PE is non-polar, low moisture absorption)

Extrusion / injection: ~180 – 240 °C (depending on grade)

Screw design: moderate back pressure

Avoid overheating / residence time for thermal stability

Use stabilizers (antioxidants) during compounding

If blending with virgin, pre dry and pre mixing beneficial

## STORAGE

Store dry, cool, away from UV

Use sealed containers / bags Prevent contamination (dust, other polymers)

Avoid stacking heavy loads that crush pellets

## SAFETY

Processing fumes are mild (mostly hydrocarbon vapors)

Use ventilation, PPE

Ingestion, inhalation of pellets or dust to be avoided

Scrap recycling is preferred; disposal per local regulations, for more information contact your PAFT representative.

## RECYCLING

Very good potential for mechanical recycling

With each cycle, molecular weight falls, property deterioration

Compatibility issues with other polyolefins (poor miscibility)

Sorting, washing, decontamination critical

Closed-loop and open-loop recycling common

## RELATED DOCUMENTS

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

Safety Information Sheet

Statement on chemicals, regulations and standards.

Statement on compliance to food contact regulations.



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