

## 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	Typical Value	Test Method
Density	0.94 – 0.96 g/cm <sup>3</sup>	ISO 1183
Melt Flow Rate (190°C/2.16kg)	12 – 20 g/10 min	ISO 1133
Flexural Modulus	1,150 – 1,300 MPa	ISO 178
Elongation at Break	> 200%	ISO 527
Charpy Impact Strength, notched (23°C)	5 – 12 kJ/m <sup>2</sup>	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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## 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)

Use stabilizers (antioxidants) during compounding

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

If blending with virgin, pre-dry and pre-mixing beneficial

Screw design: moderate back pressure

Avoid overheating / residence time for thermal stability

## STORAGE

Store dry, cool, away from UV

Avoid stacking heavy loads that crush pellets

Use sealed containers / bags

Prevent contamination (dust, other polymers)

## 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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