

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

Rotomolding, 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 ³	ISO 1183
Melt Flow Rate (190°C/2.16kg)	4 – 8 g/10 min	ISO 1133
Flexural Modulus	550 – 750 MPa	ISO 178
Elongation at Break	> 200%	ISO 527
Charpy Impact Strength, notched (23°C)	35 – 55 kJ/m ²	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.



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)

Screw design: moderate back pressure

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

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)

Ingestion, inhalation of pellets or dust to be avoided

Use ventilation, PPE

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

RECYCLING

Very good potential for mechanical recycling

Sorting, washing, decontamination critical

With each cycle, molecular weight falls, property deterioration

Closed-loop and open-loop recycling common

Compatibility issues with other polyolefins (poor miscibility)

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.



DISCLAIMER

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