



Technical Data Sheet

REVOLOOP™ 40-MD AP Recycled Plastics Resin

Description

REVOLOOP™ 40-MD AP Recycled Plastics Resin is a polyethylene resin with a fractional melt index especially designed for collation shrink film applications. The resin is formulated with 40% post-consumer recycled (PCR) plastics, specifically designed to be used in the core layer of co-extruded films. This grade is non-food contact compliant.

Main Characteristics

- Good stiffness-toughness balance for core layer
- Good shrink performance

Additive

- Antiblock: No
- Processing Aid: No
- Slip: No

Limitations

The resin is not designed or intended for regulated applications including food, personal care, medical and pharmaceutical.

Properties¹

Physical	Nominal Value	Unit	Test Method
Density	0.935	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.3	g/10 min	ASTM D1238
Films			
Film Thickness - Tested	25	µm	
Film Puncture Energy	0.42	J	ASTM D882
Film Puncture Force	20.6	N	ASTM D882
Secant Modulus			ASTM D882
1% Secant, MD	632	MPa	
2% Secant, MD	510	MPa	
1% Secant, TD	786	MPa	
2% Secant, TD	635	MPa	
Tensile Strength			ASTM D882
MD: Yield	19.5	MPa	
TD: Yield	21.8	MPa	
MD: Break	40.7	MPa	
TD: Break	21.0	MPa	

1. Typical properties: these are not to be construed as specifications. Users should confirm results by their own tests.
2. ASTM: American Society for Testing and Materials



Properties (Cont.)

Films	Nominal Value	Unit	Test Method
Tensile Elongation			ASTM D882
MD: Break	401	%	
TD: Break	714	%	
Elmendorf Tear Strength			ASTM D1922
MD	101	g	
TD	1115	g	
Thermal			
Melting Temperature (DSC)	129	°C	Internal Method
Optical			
Gloss (45°, 25 µm)	27.1		ASTM D2457
Haze (25 µm)	25.2	%	ASTM D1003
Extrusion			
Melt Temperature	210 to 225	°C	
Extrusion Notes			
Fabrication Conditions for Blown Film:			
<ul style="list-style-type: none">• Screw Size: 0.98–1.18 in. (25–30 mm); 25:1 L/D• Screw Type: Collin, Single flight screw with Maddock Mixer• Die Gap: 70 mil (1.8 mm)• Melt Temperature: 410–437°F (210–225°C)• Line Throughput: 40 kg/hr-m of die circumference• Die Diameter: 50 mm• Blow-Up Ratio: 2.5:1• Screw Speed: 47 rpm (25 mm) & 26 rpm (30mm)• Frost Line Height: 20 cm			

