# Polifil® PE RP-HDPE

### High Density Polyethylene

The Plastics Group

#### Message:

Polifil® RP-HDPE is a moderate stiffness material that retains excellent toughness. HDPE exhibits outstanding chemical resistance and environmental stress crack resistance. Injection molding applications range from small containers and lids to large crates and bins. Use this information as a guide to aid you in selecting the proper resin for your application. TPG will custom compound and fine-tune our formulations for your application.

General Information			
Recycled Content	Yes		
Features	Good Chemical Resistance		
	Good Stiffness		
	Good Toughness		
	High ESCR (Stress Crack Resist.)		
Uses	Containers		
	Crates		
	Lids		
Forms	Pellets, Reprocessed		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.958	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16			
kg)	0.10 to 5.0	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.18 mm)	2.8	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	64		ASTM D1415
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	1170	MPa	ASTM D638
Tensile Strength (23°C)	24.1	MPa	ASTM D638
Tensile Elongation			ASTM D638
Yield, 23°C	12	%	
Break, 23°C	> 200	%	
Flexural Modulus - Tangent (23°C)	1030	MPa	ASTM D790
Flexural Strength (23°C)	27.6	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	85	J/m	ASTM D256
Gardner Impact (23°C, 12.7 mm)	> 22.6	J	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648

0.45 MPa, Unannealed	71.1	°C	
1.8 MPa, Unannealed	32.2	°C	

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#### Recommended distributors for this material

## Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533 Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

