

# TECHNICAL DATA SHEET

## SP-R-3645U

Linear Low Density Polyethylene Powder for Rotational Molding

### DESCRIPTION

GREENETHENE **SP-R-3645U** is a Low-Density Linear Polyethylene Resin (LLDPE) in powder form, additivated with antioxidants and UV stabilizers. It is suitable for Rotational Molding applications. Items produced by GREENETHENE **SP-R-3645U** have a very good balance between mechanical properties and ESCR resistance.

<i>Typical Properties</i>	<i>Test Method</i>	<i>Unit</i>		<i>Value*</i>	
<i>Melt Flow Index (190 °C/2.16 Kg)</i>	ASTM D1238	gm/10 min		4.5	
<i>Density (23 °C)</i>	ASTM D1505	gm/cm <sup>3</sup>		0.936	
<i>ESCR (F-50, 10% Igepal)</i>	ASTM D1693	hr		>350	
<i>Vicat Softening Point</i>	ASTM D1525	°C		117	
<i>Hardness</i>	ASTM D2240	D		55	
<i>UV Stability (ASTM G155)</i>	ASTM D2565	Hrs		4000	
<i>Elongation at Yield</i>	ASTM D638	%		20	
<i>Notched Izod Impact Strength</i>	ASTM D256	Kg.cm/cm	25	J/m	245
<i>Tensile Strength at Yield</i>	ASTM D638	Kg/cm <sup>2</sup>	180	Mpa	17.6
<i>Tensile Strength at Break</i>	ASTM D638	Kg/cm <sup>2</sup>	205	Mpa	20
<i>ARM Low Temp Impact Strength (3.17mm)</i>	ARM (- 40)	ft.lbs	70	J	95
<i>Flexural Modulus</i>	ASTM D790	Kg/cm <sup>2</sup>	6000	Mpa	588

\*The above are typical properties and are not to be construed as specifications. Tests were done on natural, unpigmented resin. User is advised to make its own determination and assessment of the suitability of this product for its intended use. Synergy Polytek FZC make no warranty expressed or implied regarding the suitability of this product in application.

### REGULATORY INFORMATION

GREENETHENE **SP-R-3645U** meets the requirement stipulated in standard **IS:10141:2001** on “Specification for Polyethylene for safe use in contact with foodstuff, pharmaceuticals & Drinking Water”. It also conforms to standard **IS 12701:1996** – “Specification for Rotational Molded Polyethylene Water Storage Tanks.”.

### PROCESSING CONDITIONS

Recommended PIAT is 190-200 °C. Bags should be stored in dry/closed conditions at temp below 50 °C.

### APPLICATIONS



Water Storage Tank



Pallets



Dustbins



Milk Can



Garden Furniture

