

**CLEARFLEX<sup>®</sup>**

LLDPE

**RL 50 U**

Linear low density polyethylene

Clearflex RL 50 U is a linear medium density polyethylene resin, with antioxidants and UV stabilizers, suitable for rotomoulding applications.

Items manufactured with Clearflex RL 50 U show good mechanical properties and high environmental stress crack resistance (ESCR).

**Main applications**

Thanks to good mechanical properties and high ESCR, Clearflex RL 50 U is recommended for the production of high capacity containers.

**Main properties**

Resin Properties	Test method	Unit	Value
Melt Flow Rate (190 °C/ 2.16 kg)	ISO 1133	g/10min	3.5
Density	ISO 1183	g/cm <sup>3</sup>	0.941
Melting point	Internal method	°C	128
Brittleness point	ASTM D 746	°C	< - 70
Vicat softening point (1 kg)	ISO 306/A	°C	118

Mechanical Properties *	Test method	Unit	Value
Tensile stress at yield	ISO 527	MPa	19
Tensile strenght at break	ISO 527	MPa	20
Elongation at break	ISO 527	%	> 700
Flexural modulus	ISO 178	MPa	730
Falling Weight	ISO 6603/2	J/mm	20 **
Hardness Shore D	ISO 868/A		55
Environmental Stress Cracking Resistance (ESCR)	ISO 22088	h	> 500

\* Values are referred to injection moulded specimens. Actual properties are typical and may vary depending upon operating conditions. \*\* Value is referred to rotomoulded specimens

## Processing conditions

Clearflex RL 50 U can be processed by rotomoulding technology using all machinery types. This material, when properly converted, allows obtaining finished items having good surface. Suggested temperature range to obtain such results is from 230°C to 280°C, depending on the residence time in the mould.

## Storage and handling

Clearflex RL 50 U is supplied in pellet form. This material may readily be conveyed and bulk fed through equipment designed for conventional pelletised polyethylene resin, provided the equipment is designed to prevent accumulation of the fines and dust particles that are contained in all polyethylene resins. These fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used be equipped with filters of adequate size, operated and maintained in such a manner to ensure that no leaks develop and earthed adequately. We further recommend that good housekeeping be practised throughout your facility.

Stored in an airy and dry room, at temperatures between 20°C and 30°C, with no direct sunlight, the shelf life is about 18 months. However, before using this product, read and understand the relevant POLIMERI EUROPA Safety Data Sheet.

## Availability

Contact the POLIMERI EUROPA sales office nearest to you regarding availability and your specific application requirements.

## Food contact status

Clearflex RL 50 U complies with the rules and regulations of the European Union, as well as other countries, regarding the use of plastic materials in food contact applications. Certificates of compliance are available upon request.

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**IMPORTANT:** please consult the relevant safety data sheet for more detailed information. The information and data presented herein are to the best of our knowledge true and accurate but no warranty or guarantee, expressed or implied, is made nor is any liability accepted with respect to the use of such information and data.

Polimeri europa is available to provide the guaranteed values for each product on demand.