

## Technical Data Sheet

### *Lupolen* 4021 K RM

High Density Polyethylene



#### Product Description

*Lupolen* 4021 K RM is a new generation hexene linear high density polyethylene for rotomolding. Typical customer applications include large tanks including agricultural and chemical storage containers and underground and infrastructure applications. This product exhibits excellent ESCR and high impact strength at low temperatures. *Lupolen* 4021 K RM is a UV-stabilized and pelletized polymer. Tests have shown that this material is resisting against the harmful effect of biodiesel fuel\*. It is not intended for use in medical and pharmaceutical applications.

\* Resistance is based on our latest patented technology

<b>Application</b>	Heating Oil Tanks; Intermediate Bulk Containers; Tanks, Industrial
<b>Market</b>	Industrial Packaging; Industrial, Building & Construction
<b>Processing Method</b>	Rotomolding
<b>Attribute</b>	Good Processability; High ESCR (Environmental Stress Cracking Resistance); Low Temperature Impact Resistance; Low Warpage

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Melt Flow Rate, (190 °C/2.16 kg)	4.0	g/10 min	ISO 1133-1
Density	0.9395	g/cm <sup>3</sup>	ISO 1183-1
<b>Mechanical</b>			
Tensile Modulus	750	MPa	ISO 527-1, -2
Tensile Stress at Yield	19	MPa	ISO 527-1, -2
Tensile Strain at Break	> 450	%	ISO 527-1, -2
Tensile Strain at Yield	9	%	ISO 527-1, -2
Environmental Stress Crack Resistance, F <sub>50</sub> Note: Cond. B, 10% Arkopal N100	> 1000	hr	ASTM D1693
FNCT, (6.0 MPa, 2% Arkopal N100, 50 °C)	50	hr	ISO 16770
<b>Impact</b>			
Tensile Impact Strength Note: notched, type 1, method A, -30 °C	120	kJ/m <sup>2</sup>	ISO 8256
<b>Thermal</b>			
Vicat Softening Temperature, (A/50 N)	114	°C	ISO 306
<b>Processing Parameters</b>			
Peak Internal Air Temperature (PIAT) Recommended range. Note: PIAT should not exceed 225 °C.	180-210	°C	

#### Notes

These are typical property values not to be construed as specification limits.

