

PRODUCT DATA SHEET



PETRONAS

MFR 50
Density 919 **PETLIN LD M050X**

Low Density Polyethylene

DESCRIPTION

PETLIN LD M050X is a low density polyethylene resin designed primarily for injection moulding and masterbatch applications. It is produced by the state-of-the-art DSM Stamicarbon tubular process. It contains antioxidant (BHT free).

CHARACTERISTICS include:

- Low gels
- High flow and high gloss
- High filler acceptance

APPLICATIONS include:

Lids, housewares, masterbatches, powder coating.

Physical Property*	Test Method	Units	Typical Value
General Properties			
Melt Flow Rate, I ₂	ASTM D 1238;B @ 190°C, 2.16kg	g/10min	50
Nominal Density	ASTM D 792	kg/m ³	919
Melting Temperature	ASTM D 3417	°C	105
Crystallization Temperature	ASTM D 3417	°C	100
Vicat Softening Temperature	ASTM D 1525 (Load: 1 kg; Heating rate: 50°C/hr)	°C	78
Mechanical Properties			
Tensile Strength at Yield	ASTM D 638, 50mm/min type 4	MPa	8
Tensile Strength at Break	ASTM D 638, 50mm/min type 4	MPa	7
Strain at Break	ASTM D 638, 50mm/min type 4	%	200
Modulus of elasticity	ASTM D 638, 50mm/min type 4	MPa	168
Creep modulus	ASTM D 2990-09		
after 1 hour		MPa	73
after 1000 hours		MPa	38
Notch Impact Strength (Izod)	ASTM D 256		
at 23°C		kJ/m ²	41
at -30°C		kJ/m ²	5
Hardness	ASTM D 2240	-	43
Other Properties			
ESCR	DSM Method	hr	0.5

*The physical properties shown are typical values obtained by averaging a number of test results and small divergence from quoted figures may occur.

Typical Processing Conditions

For injection moulding of PETLIN LD M050X recommended melt temperature is in the range of from 180°C~210°C depending on the type of machine. Testing speed was 50mm/min.

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REGULATORY

PETLIN LD M050X complies with the following specification when processed using good extrusion practice:-

- FDA Regulation 21 CFR 177.1520 and CFR 178.2010.
- Commission Regulation (EU) No. 10/2011.
- HALAL certified.
- REACH, RoSH and SVAC.

AVAILABILITY

PETLIN LD M050X are available 25kg bags. The product type and batch number are clearly marked on each bag.

STORAGE/HANDLING

PETLIN LD M050X should be properly stored in well ventilated environment at a temperature of below 50°C. Prolonged or improper storage can result in deterioration of product properties. The PETRONAS Chemicals Safety Data Sheet (SDS) contains important safety information and should be viewed before using the product.

HEALTH & SAFETY

PETLIN LD M050X is not classified as a dangerous preparation. Please refer to our Safety Data Sheet (SDS) for details on various aspects of safety, recovery and disposal of the product.

PRODUCT STEWARDSHIP

PCGB has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. Our Product Stewardship program rests with each and every individual involved with PCGB's products– from the initial concept and research, to manufacture, use, sale and disposal of each product.

RELATED DOCUMENTS

The following related documents are available on request, and represent various aspects on the usability, safety, recovery and disposal of the product.

Safety Data Sheet (SDS)
Statement on chemicals, regulations and standards
Statement on compliance to food contact regulations

FOR MORE INFORMATION

Please contact **PETRONAS Chemicals Group Berhad (PCGB)**, Level 15, Tower 1, PETRONAS TWIN TOWERS, KLCC, 50088 KUALA LUMPUR, MALAYSIA.

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