

TECHNICAL DATA SHEET

rototech R39I04

Medium Density Polyethylene Powder for Rotational Molding

DESCRIPTION

rototech R39I04 is a HEXENE Co-polymer based Medium Density Polyethylene Resin (MDPE) in powder form which is designed for Rotational molding applications, containing antioxidants and UV12 stabilizers. Items produced by **rototech R39I04** have an excellent stiffness and a very good balance between mechanical properties like impact strength and ESCR resistance.

APPLICATIONS

- Due to its combination of mechanical properties, ESCR resistance & fluidity, **rototech R39I04** is suggested for the production of Playground equipment, manholes, storage containers, chemical & Oil tanks.

PROPERTIES

Powder Properties			
Typical Properties	Test Method	Unit	Typical Values
Melt Flow Index (190 °C/2.16 Kg)	ASTM D1238	gm/10 min	4
Density (23 °C)	ASTM D1505	gm/cm ³	0.940
PIAT (Peak Internal Air Temp) (5 mm)	TPE Method	°C	200
Dry Flow (Pourability for 35 Mesh)	ARM Standard	Secs	22
Bulk Density	ASTM D1525	Kg/m ³	450

Product Properties*			
Typical Properties	Test Method	Unit	Typical Values
Tensile Strength at Yield	ASTM D638	MPa (Kg/cm ²)	21 (204)
Tensile Strength at Break	ASTM D638	Mpa (Kg/cm ²)	25 (255)
Elongation at Break	ASTM D638	%	950
Notched Izod Impact Strength	ASTM D256	Kg.cm/cm	50 (Partial Break)
ARM Low Temperature Impact Test (5 mm)	ARM Standard	J/mm (lb-ft)	27 (110)
Flexural Modulus	ASTM D790	Mpa (Kg/cm ²)	750 (7650)
ESCR (F ₅₀ ,100% Igepal,1.9 mm, 50°C)	ASTM D1693	hr	500
Vicat Softening Point	ASTM D1525	°C	118
Durometer Hardness	ASTM D2240	Shore D	57

*Typical characteristics are not to be taken as specification.

*Test specimen for product properties is 3-3.2 mm thick unless stated.

REGULATORY INFORMATION

- GREENETHENE **rototech R39I04** 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 **IS 12701:1996** –“Specification For Rotational Molded Polyethylene Water Storage Tanks.”.

STORAGE CONDITIONS

- Bags should be stored in dry/closed conditions at temperature below 50 °C.

CUSTOM GRADES

- Different roto molding applications can require different grades of material. We produce customize grades by compounding different Materials and by altering the grinding specification as required. For example if you need a material that is very stiff but also flows well we can produce a high density grade with a high melt flow and we can also alter the grinding specification to enhance moldability.