

TECHNICAL DATA SHEET

G-3904U

Medium Density Polyethylene Powder for Rotational Molding

DESCRIPTION

- GREENETHENE **G-3904U** 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 GREENETHENE **G-3904U** 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, GREENETHENE **G-3904U** 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 **G-3904U** 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 Moulded Polyethylene Water Storage Tanks.”.

STORAGE CONDITIONS

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

CUSTOM GRADES

- Different rotomoulding 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 mouldability.

