

▶ ROTAFLOW® 4340

LLDPE Rotational Moulding Resin

Description

Rotaflow® 4340 is a Butene co-polymer based Linear Low Density Polyethylene resin (LLDPE) specifically designed for rotational moulding applications. It has good ESCR with excellent toughness and stiffness.

Rotaflow® 4340 is a LLDPE resin intended for applications requiring an excellent balance of stiffness and toughness, and contains a high level of UV stabiliser to give protection for outdoor applications.

Rotaflow® 4340 is available in a limited range of colours – Please see your local Vanglobe representative for details.

When used in accordance with FDA application guidelines, Rotaflow® 4340** conforms to the requirements of U.S. FDA 21 CFR 177.1520 clauses (c) and TIS 816-2538 (1995) for food contact use. Containing UV stabilisation, the conditions described in FDA 21 CFR 176.170 (c) table 2, conditions B to H apply. Volume, temperature and food type restrictions may apply. This product should not be used in applications for holding food during cooking without the required product compliance testing.

Typical Applications

- ▶ General Moulding
- ▶ Materials Handling
- ▶ Water Tanks (Small- Medium)
- ▶ Outdoor Applications

Properties **	Unit	Value	Test Method
MFI (2.16/190)	g/10min	3.1	ASTM D1238
Density	g/cm³	0.941	ASTM D1505
ESCR ² (F ₅₀)	Hours	>1000	ASTM D1693
Flexural Modulus @12.8mm/min	MPa	800	ASTM D760
Tensile Strength @ Yield ¹	MPa	21	ASTM D638
Elongation @ Break ¹	%	>1000	ASTM D638
Surface Hardness	Shore D	60	ASTM D2240

** Base Resin – Properties

1. Crosshead speed = 50 mm/min
2. 100% Igepal solution

- Test data as stated by Raw Material Manufacturer datasheets and brochures - as measured on virgin natural resin.
- Typical (average) Values only – not to be considered as specifications
- ** Rotaflow® 4340 natural and tanks colours – for FDA status on all other colours please contact your local Vanglobe representative.

► *Important Information*

Before using this product, moulders are advised to conduct their own determination of the safety and suitability of the product for their specific application and are further advised against relying only on the information contained herein as it may relate to any specific use or application. Whilst care is taken in the preparation of this information, Vanglobe Pty Ltd and its employees cannot be held responsible for the subsequent use of this information by any third party. The properties quoted are based on standard test methods and standard moulded plaques and shapes using natural resin. The addition of pigments and/or additives to a natural base may affect some properties. It is essential that you ensure the suitability of the material for your specific application prior to use. It is the ultimate responsibility of the user to ensure this product is suited for, and the information is applicable to the user's specific application.

► *Combustibility*

Polyethylene will burn when supplied with sufficient heat and oxygen. Resins should be handled and stored away from contact with direct flames and/or other ignition sources. Conventional fire fighting processes may be used to extinguish Polyethylene fires, with water and water mist being the preferred options due to the high heat contribution made by the burning Polyethylene. Polyethylene may generate a dense black smoke whilst burning – it is recommended that Fire fighters use self contained breathing apparatus when operating in enclosed areas.

► *Explosion Hazard*

While care is taken to keep the amount of sub 150µm particles to a minimum, some fines will always be present in the supplied powder. These fines can, under certain conditions, pose an explosion hazard. We recommend that the processing equipment has adequate grounding at all times and good housekeeping be practiced throughout the facility.

► *Storage and Handling*

Rotaflow® resins should be stored in a clean, dry place at ambient temperatures. Prolonged or improper storage can result in deterioration of product properties. Care should be taken when handling and transferring product to prevent foreign matter contamination.

Hot or Molten Polyethylene contains a high energy value and has the potential to cause severe burns to personnel. Eye and skin protection should be used when handling Polyethylene in this state i.e. safety glasses, gloves and full length natural fibre work wear are recommended.

Workstations are to be adequately ventilated to prevent the accumulation of fumes, vapours and smoke resulting from the processing of Polyethylene.

► *Contact*

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Further Information is available by visiting the following websites, or at the above contacts;

www.vanglobegroup.com

www.vanglobe.co.nz