vanglobe
specialising in compounding & micronising

Rotathene®
Strength Without Compromise

TECHNICAL DATA SHEET

RECYCLED BLACK

LLDPE Rotational Moulding Resin

Description

Recycled Black is a Linear Low Density Polyethylene resin (LLDPE) specifically suited to non food or potable water contact applications.

Recycled Black resin is manufactured from virgin process materials (manufacturing plant scrap) and returned field mouldings.

All components used in Recycled Black are specifically intended for use in rotational moulding applications. Core base resin inputs are predominantly hexene based LLDPE resins providing excellent Environmental Stress Crack Resistance and stiffness.

Typically, input components contain a high level of UV additive as well as the additional protection provided by a thorough compounded black pigmentation system to provide long term protection against the damaging Australasian climate.

Vanglobe Recycled Black is a sensible and environmentally aware choice for applications requiring exceptional mechanical properties in non food or potable water contact applications.

Typical Applications

Telecommunications Pits	Garden Applications	Compost Bins
General Custom Moulding	Animal Troughs	Garden Ponds

Properties***

	Unit	*Value*	*Tested#*	*Test Method*
MFI (2.16/190)	g/10min	2.5 – 5.0	3.1	ASTM D1238
Density	g/cm^3	0.935 – 0.940	0.938	ASTM D1505
Flexural Modulus (Youngs)	MPa	650 – 700	710	ASTM D790M
Tensile Strength @ Yield[1]	MPa	15 – 21	20	ASTM D638M
Elongation @ Break[1]	%	>700	>1000	ASTM D638M
ARM Impact Strength[2] (3mm)	Joules	TBA		Std ARM Impact

*** Properties based on major component base resin
1. Crosshead speed = 50 mm/min
2. ARM Impact Strength @ -40°C

Tested – values presented are an average of random samples tested as per the standards specified

Typical (average) values only - not to be considered as specifications
**** Based on expected properties relevant to general input components*

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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 / Vanglobe New Zealand Pty Ltd and their 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

Rotathene® 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

For further information on Rotathene®, please contact the Vanglobe office closest to you.

Vanglobe Technical can be contacted at Vanglobe Melbourne or by emailing support@vanglobe.com.au.

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