

TECHNICAL DATA SHEET

ROTATHENE® Octene 8539

LLDPE Rotational Moulding Resin

Description

Rotathene® Octene 8539 is an octene co-polymer based Linear Low Density Polyethylene resin (LLDPE) specifically designed for rotational moulding applications. It has high ESCR, high chemical resistance, excellent toughness and stiffness.

Rotathene® Octene 8539 is an LLDPE resin intended for applications requiring an exceptional balance of stiffness and toughness. A high level of UV stabiliser offers protection in outdoor applications.

When used in accordance with FDA application guidelines, Rotathene® Octene 8539** conforms to the requirements of U.S. FDA 21 CFR 177.1520 (c) 3.1a and AS2070-1999 sec.4.1.1 (a). Containing UV stabilisation, 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.

Rotathene® Octene 8539 is available in the full range of Rotathene® Tank and Standard colours. A colour matching service is also available upon request. For your added piece of mind, all pigment systems used in Rotathene® tank colours are heavy metal free.

Typical Applications

Agricultural Storage Tanks	Water Tanks	Chemical Tanks
Materials Handling	Silos	Outdoor Applications
General Moulding	IBCs	Septic Systems
Kayaks	Boats	Underground Applications

Properties***

	Unit	Typical Values		Test Method
		Compressed	Roto-moulded	
MFI (2.16/190)	g/10min	5.2	-	ASTM D1238
Density	g/cm3	0.939	-	ASTM D792
CTL ESCR ¹	hours	50		ARM method
Bent Strip ESCR Condition B	Hours	>1000		ASTM D1693
Flexural Modulus (Youngs) 1% strain	MPa	805	830	ASTM D790
Tensile Strength @ Yield ²	MPa	19.9	19.9	ASTM D638
Melting Point	°C	125.6		ASTM E794
Heat Distortion Temp				
66psi (4.64kg/cm ²)	°C	60		ASTM D648
264psi (18.56kg/cm ²)	°C	42		ASTM D648
ARM Low Temp Impact ³	°C	68		ASTM D648
0.250" (6.35mm)	J		240	ARM method
*** Base Resin Properties 1. 10% Igepal. ARM method, 4.5MPa tensile strength 2. Type IV specimen, 2" (50.8mm) per minute test speed, 0.075" (1.9mm) thickness 3. -40°C				

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

** Rotathene® natural and tank colours - for FDA status on all other colours please contact your local Vanglobe representative.

Vanglobe Pty Ltd
ABN 64 010 642 243

Brisbane (Head Office) 37 Antimony Street, PO Box 104, Carole Park QLD 4300 Australia
Perth 559 Valencia Way, Maddington WA 6109 Australia
Melbourne 19-23 Park Way, Braeside VIC 3195 Australia

T 61 7 3271 3955 T 1800 888 141 F 61 7 3271 4532
 T 61 8 9493 6414 F 61 8 9493 6419
 T 61 3 9587 4880 F 61 3 9587 6538
 E sales@vanglobe.com.au
 E support@vanglobe.com.au

Vanglobe New Zealand Pty Ltd
ACN 113 712 657

Palmerston North 43-49 Railway Road, PO Box 5078, Terrace End, New Zealand

T 64 6 357 8498 T 0800 56 93 56 F 64 6 358 8127
 E customerservice@vanglobe.co.nz



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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