

# Alkatuff®

## Polyethylene



<b>Grade</b>	<b>Major End Use</b>
LL705UV	ROTATIONAL MOULDING

<b>Description</b>
Alkatuff LL705UV is a hexene LLDPE material specifically designed for rotational moulding applications that require excellent ESCR, chemical resistance, stiffness and toughness. Alkatuff LL705UV is UV stabilised to provide prolonged outdoor protection in Australian conditions.

<b>Application</b>
Alkatuff LL705UV is a general purpose rotational moulding grade, uses of which include water and agricultural tanks, leisure craft, canoes and playground equipment. Alkatuff LL705UV complies with the base resin requirements of AS/NZS 4766 Polyethylene storage tanks for water and chemicals.

<b>Food Contact Statement</b>
If this product is used for food contact applications then the user needs to ensure compliance with the requirements of AS2070-1999 and relevant FDA regulations.
When used in accordance with FDA application guidelines this product meets the requirements of FDA 21 CFR 177.1520 (c) 3.1a and AS2070-1999 section 4.1.1(a). This product contains UV light stabilizers and so end use restrictions as described in FDA 21 CFR 176.170 (c) table 2 conditions D to G apply. Volume and food type restrictions may apply. This product should not be used in applications for holding food during cooking without the required compliance testing. This information is only for the Major End Use described on this Product Data sheet. For further information please contact your primary Qenos contact.

<b>Safety</b>
Material Safety Data Sheets are available from Qenos for all Qenos polyethylene grades.



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<b>Grade</b>
<b>LL705UV</b>

<b>Physical Properties</b>			
Property	Test Method	Value <sup>1</sup>	Units
Melt Index @190°C, 2.16kg	ASTM D1238	5.0	g/10 min
Density	ASTM D1505	0.935	g/cm <sup>3</sup>
Melting Point	ASTM D3418	127	°C
Thermal Stability	AS/NZS 4766	Pass	-
Tensile Strength at Yield <sup>2</sup>	ASTM D638	17.5	MPa
Flexural Modulus (1% Secant) <sup>3</sup>	ASTM D790B	700	MPa
ESCR F <sub>50</sub> (Condition A, 100% Igepal)	ASTM D1693	>1000	hrs
Contact with Drinking Water	AS/NZS 4020	Pass	-
Hydrostatic Design Basis	ASTM D2837	6.89 <sup>4</sup>	MPa
UV Resistance <sup>5</sup>	AS/NZS 4766	Pass	-

1. Typical values - not to be construed as specifications.
2. At 50 mm/min crosshead speed
3. At 12.7 mm/min crosshead speed
4. A service factor must be applied in accordance with AS/NZS 4766.
5. Samples of injection moulded non-pigmented LL711UV retained more than 50% tensile elongation after 8,000 hours of accelerated weathering in Qenos's Xenon-Arc weatherometer.  
Note that LL705UV has an identical additive package to LL711UV and would be expected to perform similarly. Qenos is accredited by NATA to perform accelerated weathering in accordance with ASTM D 2565. UV performance determined via artificial weathering does not translate into a specific outdoor UV lifespan. Many factors can influence the overall UV performance of rotomoulded articles.

For up to date information, refer to [www.qenos.com](http://www.qenos.com)

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In using Qenos Pty Ltd's products, you must establish for yourself the most suitable formulation, production method and control tests, to ensure the uniformity and quality of your product in compliance with all laws.; Qenos Pty Ltd ACN 054 196 771 is the registered user of the Qenos Logo which is registered trademark of Qenos Pty Ltd.; "Alkatuff" is a trademark of Qenos Pty Ltd.

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