

# Asterene C513UV

## HIGH DENSITY POLYETHYLENE

This high density polyethylene extra high molecular weight, hexene copolymer resin is tailored for intermediate bulk container applications that require:

- Outstanding impact resistance
- Exceptional ESCR
- Excellent processability
- Good UV stabilization

Typical blow molded applications for C513UV include:

- Intermediate bulk containers
- Agricultural containers

This resin meets these specifications:

- ASTM D4976 – PE 235
- FDA 21 CFR 177.1520(c) 3.2a, use conditions B through H described in Table 2 of 21 CFR 176.170(c). When contacting fatty foods of Types III, IV-A, V, VII-A, and IX described in Table 1 of 21 CFR 176.170(c), the finished articles are to have a volume of at least 18.9 litres.

NOMINAL PHYSICAL PROPERTIES <sup>(1)</sup>	TEST METHOD	UNIT	VALUE
Density	ASTM D1505	g/cm <sup>3</sup>	0.945
Melt Index, Conditions 190/21.6	ASTM D1238	g/10 min	6.2
Tensile Strength at Yield, 50 mm/min, Type IV bar	ASTM D638	MPa	24
Elongation at Break, 50 mm/min, Type IV bar	ASTM D638	%	700
Flexural Modulus, Tangent - 16:1 span:depth, 12.7 mm/min	ASTM D790	MPa	1070
ESCR, Condition A (100% Igepal), F <sub>50</sub>	ASTM D1693	h	>2000
ESCR, Condition B (100% Igepal), F <sub>50</sub>	ASTM D1693	h	>2000
Durometer Hardness, Type D (Shore D)	ASTM D2240	-	61
Vicat Softening Temperature, Loading 1, Rate A	ASTM D1525	°C	123
Heat Deflection Temperature, 0.45MPa, Method A	ASTM D648	°C	66
Brittleness Temperature, Type A clamp, Type I specimen	ASTM D746	°C	<-75
Tensile Impact, Type S bar	ASTM D1822	kJ/m <sup>2</sup>	580

- (1) The nominal properties reported herein are typical of the product, but do not reflect normal testing variance and therefore should not be used for specification purposes. Values are rounded. The physical properties were determined on compression molded specimens that were prepared in accordance with Procedure C of ASTM D4703, Annex A1.

Before using this product, the user is advised and cautioned to make its own determination and assessment of the safety and suitability of the product for the specific use in question and is further advised against relying on the information contained herein as it may relate to any specific use or application. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user's specific application. Aster Polymer Solutions Pte. Ltd. does not make, and expressly disclaims, all warranties, including warranties of merchantability or fitness for a particular purpose, regardless of whether oral or written, express or implied, or allegedly arising from any usage of any trade or from any course of dealing in connection with the use of the information contained herein or the product itself. The user expressly assumes all risk and liability, whether based in contract, tort or otherwise, in connection with the use of the information contained herein or the product itself. Further, information contained herein is given without reference to any intellectual property issues, as well as any international laws which may be encountered in the use thereof. Such questions should be investigated by the user.