# AFFINITY™ SQ 1503UE

### Polyolefin Plastomer

The Dow Chemical Company

#### Message:

AFFINITY<sup>™</sup> SQ 1503 UE Polyolefin Plastomer is a Polyolefin Plastomer (POP) produced using INSITE<sup>™</sup> Technology.

AFFINITY SQ 1503 UE Polyolefin Plastomer is specifically designed for rotomoulding applications. It offers easy demoulding combined with flexibility and elastic recovery normally associated with polar copolymers such as EBA, EVA and plasticised PVC.

Processing and Stabilisation: The inherently stable POP is further stabilised against heat and UV-radiation. The result is a wide processing latitude, good colour retention and long life expectancy.

Availability: AFFINITY SQ 1503 UE Polyolefin Plastomer is available as free flowing powder ground to 500 micron.

Applications: Buoys Fenders Road furniture Complies with: EU, No 10/2011 U.S. FDA FCN 424 Consult the regulations for complete details.

General Information			
Agency Ratings	EU No 10/2011		
	FDA FCN 424		
Forms	Powder		
Processing Method	Rotational Molding		
Physical	Nominal Value	Unit	Test Method
Density	0.900	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16			
kg)	6.0	g/10 min	ISO 1133
Environmental Stress-Cracking Resistance			ASTM D1693
50°C, 10% Antarox, Compression			
Molded	> 1000	hr	
50°C, 100% Antarox, Compression			
Molded	> 1000	hr	
Hardness	Nominal Value	Unit	Test Method
Shore Hardness			ISO 868
Shore A, Compression Molded	92		
Shore D, Compression Molded	40		
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress			ISO 527-2
Yield, Compression Molded	5.00	MPa	
Yield, Rotational Molded	5.00	MPa	
Break, Compression Molded	21.0	MPa	
Break, Rotational Molded	19.0	MPa	
Tensile Strain			ISO 527-2

Break, Compression Molded	1200	%	
Break, Rotational Molded	1000	%	
Flexural Modulus - 2% Secant			ASTM D790
Compression Molded	81.0	MPa	
Rotational Molded	70.0	MPa	
Elastomers	Nominal Value	Unit	Test Method
Tensile Set <sup>1</sup> (100% Strain)	10	%	Internal Method
Impact	Nominal Value	Unit	Test Method
Falling Dart Impact			ISO 6603-2
-20°C <sup>2</sup>	> 150	J/cm	
-20°C <sup>3</sup>	> 150	J/cm	
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	82.0	°C	ISO 306/120
Melting Temperature	97.0	°C	DSC
Peak Crystallization Temperature (DSC)	80.0	°C	DSC
NOTE			
1.	Rotational Molded		
2.	Rotational Molded, No break		
3.	Compression Molded, No break		

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