



AFFINITY™ SQ 1503UE Polyolefin Plastomer

Overview AFFINITY™ SQ 1503 UE Polyolefin Plastomer is a Polyolefin Plastomer (POP) produced using INSITE™ Technology from Dow Plastics.

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:

- Europe EU-Directive 2002/72/EC
- U.S. FDA FCN 424

Consult the regulations for complete details.

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.900 g/cm ³	0.900 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	6.0 g/10 min	6.0 g/10 min	ISO 1133
Environmental Stress-Cracking Resistance			ASTM D1693
122°F (50°C), 100% AntaroX, Compression Molded	> 1000 hr	> 1000 hr	
122°F (50°C), 10% AntaroX, Compression Molded	> 1000 hr	> 1000 hr	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Stress			ISO 527-2
Yield, Rotational Molded	725 psi	5.00 MPa	
Yield, Compression Molded	725 psi	5.00 MPa	
Break, Rotational Molded	2760 psi	19.0 MPa	
Break, Compression Molded	3050 psi	21.0 MPa	
Tensile Strain			ISO 527-2
Break, Compression Molded	1200 %	1200 %	
Break, Rotational Molded	1000 %	1000 %	
Flexural Modulus - 2% Secant			ASTM D790
Rotational Molded	10200 psi	70.0 MPa	
Compression Molded	11700 psi	81.0 MPa	
Elastomers	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Set (100% Strain)	10 %	10 %	Dow Method ¹
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Shore Hardness			ISO 868
Shore D, Compression Molded	40	40	
Shore A, Compression Molded	92	92	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Vicat Softening Temperature	180 °F	82.0 °C	ISO 306/120
Melting Temperature	207 °F	97.0 °C	DSC
Peak Crystallization Temperature (DSC)	176 °F	80.0 °C	DSC
Additional Information	Nominal Value (English)	Nominal Value (SI)	Test Method
Falling Dart Impact			
-4°F (-20°C)	> 281 ft·lb/in	> 15000 J/m	ISO 6603-2 ²
-4°F (-20°C)	> 281 ft·lb/in	> 15000 J/m	ISO 6603-2 ³

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

¹ Compression Molded

² Compression Molded, No break

³ Rotational Molded, No break

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