

AMPAL® MPV 2500

Thermoset Polyester

RASCHIG GmbH

Message:

Halogen-free, organically and inorganically filled melamine-modified Polyester moulding compound
Excellent elasticity and shock resistance, low post-shrinkage, very good electrical values, high heat resistance, very good sliding behaviour and wear stability
Moulded parts in electrical engineering, mainly electrical parts like circuit breakers, relays, switches, contact terminals
This product meets the allowed upper limits for heavy metals and PCAs and also conforms to the requirements of the EU directives 2002/95 (RoHS), 2002/96 (WEEE) and 2006/122 (PFOS)

General Information			
UL YellowCard	E75850-249902		
Filler / Reinforcement	Organic\Inorganic		
Features	Good Electrical Properties		
	Good Wear Resistance		
	Halogen Free		
	High Elasticity		
	High Heat Resistance		
	Low Shrinkage		
	Shock Resistant		
Uses	Electrical Parts		
	Switches		
Agency Ratings	EU 2002/96/EC (WEEE)		
	EU 2006/122/EC		
RoHS Compliance	RoHS Compliant		
Forms	Granules		
Processing Method	Compression Molding		
	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.60 to 1.70	g/cm ³	ISO 1183
Apparent Density	0.70 to 0.90	g/cm ³	ISO 60
Molding Shrinkage - Flow ¹	0.70 to 1.0	%	ISO 2577
Water Absorption (23°C, 24 hr)	< 0.80	%	ISO 62
Post Shrinkage ²	0.20 to 0.40	%	ISO 2577
Maximum Service Temperature			IEC 60216
<50 h	190	°C	
20,000 h	140	°C	

Compression Molding Molding Pressure	> 10.0	MPa	
Compression Molding Temperature	160 to 180	°C	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			ISO 527-2
Compression Molded	4000 to 6000	MPa	
Injection Molded	5000 to 7000	MPa	
Tensile Stress			ISO 527-2
Compression Molded	30.0 to 50.0	MPa	
Injection Molded	45.0 to 55.0	MPa	
Flexural Modulus			ISO 178
Compression Molded	5000 to 7000	MPa	
Injection Molded	6000 to 8000	MPa	
Flexural Stress			ISO 178
Compression Molded	50.0 to 80.0	MPa	
Injection Molded	90.0 to 110	MPa	
Compressive Stress	150 to 200	MPa	ISO 604
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
Compression Molded	1.5 to 2.5	kJ/m ²	
Injection Molded	2.0 to 3.0	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
Compression Molded	6.0 to 8.0	kJ/m ²	
Injection Molded	10 to 14	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
1.8 MPa, Unannealed	180 to 200	°C	ISO 75-2/A
8.0 MPa, Unannealed	80.0 to 110	°C	ISO 75-2/C
CLTE - Flow (50 to 100°C)	2.0E-5 to 3.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.60 to 0.70	W/m/K	ASTM E1461
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+12 to 1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+13 to 1.0E+14	ohms · cm	IEC 60093
Electric Strength	30 to 40	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
	7.00		
100 Hz	5.00		

5.00

1 MHz 4.00

Dissipation Factor		IEC 60250
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100 Hz 0.10 to 0.20

1 MHz 0.030 to 0.050

Arc Resistance	PLC 4	ASTM D495
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Comparative Tracking Index	600	V	IEC 60112
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Flammability	Nominal Value	Unit	Test Method
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Flame Rating (1.50 mm)	V-0		UL 94
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Glow Wire Flammability Index	960	°C	IEC 60695-2-12
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Glow Wire Ignition Temperature	825	°C	IEC 60695-2-13
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Injection	Nominal Value	Unit
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Middle Temperature	50.0 to 75.0	°C
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Front Temperature	80.0 to 100	°C
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Processing (Melt) Temp	100 to 115	°C
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Mold Temperature	165 to 180	°C
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Back Pressure	0.800 to 1.20	MPa
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Screw Speed	80 to 120	rpm
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NOTE

1.	Compression Molded
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2.	168 h / 110°C
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