

# ASTALAC™ ABS KMS

Acrylonitrile Butadiene Styrene

Marplex Australia Pty. Ltd.

## Message:

ASTALAC™ ABS KMS was upgraded in November 2007 to comply with RoHS and is a high impact strength flame retardant grade of ABS designed for sheet extrusion applications requiring flame retardancy, superior toughness and abuse resistance whilst maintaining a balance of high gloss, easy formability and product rigidity. Typical thermoformed applications include large air conditioner/heater unit casings and advertising signage blanks. Note: The letters "UV" or "W" indicate UV stabilisation has been added [ ie: ASTALAC™ ABS KMSUV ].

General Information	
Additive	Flame Retardant
Features	Flame Retardant
	Good Toughness
	High Gloss
	High Impact Resistance
	Medium Rigidity
Uses	Sheet
RoHS Compliance	RoHS Compliant
Processing Method	Sheet Extrusion
	Thermoforming

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.15	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/3.8 kg)	1.5	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.00 mm)	0.60	%	ASTM D955
Water Absorption (24 hr)	0.25	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	86		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>1</sup> (3.20 mm)	36.0	MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break, 3.20 mm)	50	%	ASTM D638
Flexural Modulus <sup>3</sup> (3.20 mm)	2050	MPa	ASTM D790
Flexural Strength <sup>4</sup> (3.20 mm)	62.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (3.20 mm)	400	J/m	ASTM D256
Gardner Impact (3.20 mm)	40.0	J	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
1.8 MPa, Unannealed, 3.20 mm	72.0	°C	
1.8 MPa, Unannealed, 12.7 mm	84.0	°C	

Vicat Softening Temperature	98.0	°C	ASTM D1525 <sup>5</sup>
CLTE - Flow	9.0E-5	cm/cm/°C	ASTM D696
Flammability	Nominal Value	Unit	Test Method
Glow Wire Ignition Temperature (1.60 mm)	960	°C	AS/NZS 60695
Extrusion	Nominal Value	Unit	
Drying Temperature	85.0 to 90.0	°C	
Drying Time	3.0 to 5.0	hr	
Cylinder Zone 1 Temp.	170 to 190	°C	
Cylinder Zone 2 Temp.	175 to 200	°C	
Cylinder Zone 3 Temp.	180 to 205	°C	
Cylinder Zone 4 Temp.	185 to 210	°C	
Cylinder Zone 5 Temp.	190 to 220	°C	
Melt Temperature	190 to 230	°C	
Die Temperature	180 to 220	°C	
Take-Off Roll	75.0 to 105	°C	
Back Pressure	10.0 to 25.0	MPa	

#### NOTE

- |    |                  |
|----|------------------|
| 1. | 5.0 mm/min       |
| 2. | 5.0 mm/min       |
| 3. | 1.3 mm/min       |
| 4. | 1.3 mm/min       |
| 5. | Loading 1 (10 N) |

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