

Kumho ABS 740 data provided by IDES

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Prime Payments

Data Sheet
Prospector Pro

Friday, December 13, 2002

Kumho ABS 740

Unit System:

Kumho Chemicals, Inc. - Acrylonitrile Butadiene Styrene

Actions

- - ISO
- - CAMPUS®
- - Multi-Point
- ☒ - Sourcing
- ☒ - E-mail a Data Sheet

Product Characteristics

Material Status	• Commercial: Active
Availability	• North America
	• Europe
Test Standards Available	• ASTM
Recycled Content	• No
Features	• Impact Resistance, Good
	• Impact Resistance, Low Temp.
	• Toughness, Good
Uses	• Appliances
	• Automotive Applications
	• Footwear
	• Safety Helmets
	• Toys
Agency Ratings	• FDA Unspecified Rating 1
Forms	• Pellets
Processing Method	• Blow Molding
	• Extrusion
	• Injection Molding
	• Thermoforming
	• Vacuum Forming

Properties ²

Physical	Nominal Values (SI)	Test Method
Density - Specific Gravity	1.04 sp gr 23/23°C	ASTM D792
Melt Flow Rate (200°C/5.0 kg - G)	2.10 g/10 min	ASTM D1238
Mold Shrink, Linear-Flow	0.0040 to 0.0070 cm/cm	ASTM D955
Mechanical	Nominal Values (SI)	Test Method
Tensile Strength @ Yield	41.4 MPa	ASTM D638
Tensile Elongation @ Yld	60 %	ASTM D638
Flexural Modulus	2050 MPa	ASTM D790
Flexural Strength @ Yield	58.6 MPa	ASTM D790
Impact	Nominal Values (SI)	Test Method
Notched Izod Impact (23 °C, 3.18 mm)	362.97 J/m	ASTM D256
(23 °C, 6.35 mm)	272.23 J/m	
Hardness	Nominal Values (SI)	Test Method
Rockwell Hardness (R-Scale)	98	ASTM D785
Thermal	Nominal Values (SI)	Test Method
DTUL @264psi - Unannealed	80.0 °C	ASTM D648
Vicat Softening Point	91.7 °C	ASTM D1525
Ignition Characteristics	Nominal Values (SI)	Test Method
Flame Rating - UL (1.59 mm)	HB	UL 94
(3.18 mm)	HB	
(6.35 mm)	HB	
UL 746	Nominal Values (SI)	Test Method

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Rel Temp Indx Mech w/olmp		UL 746
(1.59 mm)	70.0 °C	
(3.18 mm)	75.0 °C	
(6.35 mm)	75.0 °C	
Rel Temp Indx Mech w/lmp		UL 746
(1.59 mm)	70.0 °C	
(3.18 mm)	75.0 °C	
(6.35 mm)	75.0 °C	
Rel Temp Indx Elect		UL 746
(1.59 mm)	70.0 °C	
(3.18 mm)	75.0 °C	
(6.35 mm)	75.0 °C	

Notes

- 1 When used unmodified for the manufacture of food contact articles, Kumho ABS 740 will comply with Food Additive Regulations FDA Unspecified Rating under the U.S. Food, Drug and Cosmetic Act. Such uses are subject to good manufacturing practices and any other limitations which are part of the statute or regulations. These should be consulted for complete details.
- 2 Typical properties; not to be construed as specifications.



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The information presented on this data sheet was acquired by IDES from various sources, including the producer of the material and recognized testing agencies. In some cases, material updates have been integrated directly into the IDES i-Centric Database by the material producer utilizing the IDES i-Manage Suite™ Data Maintenance Tool. IDES makes substantial efforts to assure the accuracy of this data. However, IDES assumes no responsibility for the data values and urges that upon final material selection, data points are validated with the manufacturer.

ABS -
GRADE : ABS740

Typical Properties of ABS

Properties	Condition	Test Method		Unit			740						
		ASTM	DIN										
Tensile Strength	at yield	-	S3455	N/mm ²			42						
		D638	-	kg/cm ²			420						
Elongation	at break	D638	S3455	%			60						
Modulus of elasticity In tension		-	S3457	N/mm ²			2100						
Flexural Strength		-	S3452	N/mm ²			60						
		D790	-	kg/cm ²			600						
Charpy Impact Strength (notched)	at 23°C	-	S3453	kJ/m ²			14						
	at -40°C						5						
	at 23°C						n.b.						
Charpy Impact Strength	at -20°C	-	S3453	kJ/m ²			80						
	at -40°C						70						
Ball Indentation Hardness	H158/30	-	S3456	N/mm ²			850						
Vicat Softening Point	10 N	D1525	S3460	°C			92						
Heat Distortion Temp.	1.8 N/mm ²	D648	S3461	°C			80						
Melt Index	MFI 200/21.6	D1238	S3735	g/10min			28						
	MFI 200/10	D1238	S3735	g/10min			18						
Specific gravity		D792	S3479	g/cm ³			1.04						
Moulding shrinkage		D955	16901	%			0.4-0.7						
Flammability	1.6mm	UL 94	UL 94	CLASS			HB						
	3.2mm												
	6.4mm												

(Note 1) These typical property values are intended to serve as guides only, and not as specification limits.
(Note 2) All resins comply with FDA requirements.

FAC BLENDED WASH

FROM PAULINE SHEPHERD

ABS

<u>CHEMICAL COMPOSITION:</u>	ACRYLONITRILE/ BUTADIENE/ STYRENE COPOLYMER CAS NO: 9003-56-9.
<u>PHYSICAL FORM:</u>	CREAN OR COLOURED PELLETS.
<u>HAZARD WARNING LABEL:</u>	NONE.
<u>TOXIC HAZARD:</u>	PRACTICALLY NON HARMFULL BY INGESTION.
<u>FIRE HAZARD:</u>	IF STRONGLY HEATED MAY CATCH FIRE AND GIVE OFF TOXIC FUMES. EXTINGUISH WITH FOAM OR WATER SPRAYFOR LARGE FIRE. EXTINGUISH WITH CO₂, DRY POWDER, WATER SPRAY FOR SMALL FIRE. FIREFIGHTERS, AND OTHERS EXPOSED, WEAR SELF CONTAINED BREATHING APPARATUS.
<u>EMERGENCY FIRST AID:</u>	IF SPLASHED BY MOLTEN MATERIAL, COOL QUICKLY WITH WATER AND SEEK MEDICAL AID: DO NOT PULL OFF FROM SKIN. EYES: FLUSH WITH WATER.
<u>PHYSICAL DATA:</u>	SPECIFIC GRAVITY: SLIGHTLY HEAVIER THAN WATER. INSOLUBLE IN WATER. SOFTENING POINT: 82 - 104 ⁰ C. AUTO INGNITION TEMPERATURE: 500 ⁰ C (APPROX)
<u>HANDLING PRECAUTIONS:</u>	GOOD INDUSTRIAL PRACTICE IN HOUSEKEEPING AND PERSONAL HYGIENE SHOULD BE FOLLOWED. PROVIDE LOCAL EXHAUST VENTILATION.
<u>STORAGE:</u>	NO SPECIAL PRECAUTIONS APPEAR NECESSARY.
<u>SPILLAGE, LEAKAGE: AND DISPOSAL</u>	SPILLAGE: SWEEP UP INTO CONTAINERS FOR DISPOSAL: BURY SMALL QUANTITIES IN APPROVED LANDFILL, FOR LARGER SPILLS CONTACT SUPPLIER FOR RECOVERY INSTRUCTIONS.