

ABS – Acrylonitrile Butadiene Styrene

Facts:

ABS, Acrylonitrile-butadiene-styrene is one of the most widely used engineering thermoplastics today.

The product has excellent surface appearance, strength and stiffness, toughness, low creep, excellent dimensional stability and chemical resistance. As well as easy processing versatility.

ABS is produced by a combination of three monomers: acrylonitrile, butadiene, and styrene. Each of the monomers impart different properties: hardness, chemical and heat resistance from acrylonitrile; Easy processing, gloss, and strength from styrene; and toughness and impact resistance from butadiene.

Applications:

Refrigerator door liners, interior automotive trim and housings for business machines, small appliances, telephones and other consumer electronics.

Limitations:

- Poor weathering resistance
- Moderate heat
- Moisture and chemical resistance
- Flammable with high smoke generation

Kumho ABS 750

Acrylonitrile Butadiene Styrene

Korea Kumho Petrochemical Co., Ltd.



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Technical Data

General

Material Status	• Commercial: Active		
Literature ¹	• Technical Datasheet (English)		
UL Yellow Card ²	• E65424-247677		
Search for UL Yellow Card	• Korea Kumho Petrochemical Co., Ltd.		
Availability	• Asia Pacific	• Europe	• North America
Features	• General Purpose • Good Adhesion	• Good Dimensional Stability • Good Flow	• High Gloss • Medium Impact Resistance
Uses	• Appliances	• Business Equipment	• General Purpose
RoHS Compliance	• RoHS Compliant		
UL File Number	• E65424		
Forms	• Pellets		
Processing Method	• Blow Molding • Extrusion	• Injection Molding • Thermoforming	• Vacuum Forming

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Specific Gravity	1.04	1.04 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
200°C/21.6 kg	47 g/10 min	47 g/10 min	
200°C/5.0 kg	4.1 g/10 min	4.1 g/10 min	
220°C/10.0 kg	34 g/10 min	34 g/10 min	
Molding Shrinkage - Flow	0.0040 to 0.0070 in/in	0.40 to 0.70 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			ASTM D638
Yield, 73°F (23°C), 1.97 in (50.0 mm)	6670 psi	46.0 MPa	
Tensile Elongation			ASTM D638
Yield, 73°F (23°C), 1.97 in (50.0 mm)	15 %	15 %	
Flexural Modulus			ASTM D790
73°F (23°C), 0.118 in (3.00 mm)	312000 psi	2150 MPa	
Flexural Strength			ASTM D790
Yield, 73°F (23°C), 0.118 in (3.00 mm)	9230 psi	63.6 MPa	
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), 0.126 in (3.20 mm)	5.5 ft·lb/in	290 J/m	
73°F (23°C), 0.252 in (6.40 mm)	4.8 ft·lb/in	260 J/m	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	108	108	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	185 °F	85.0 °C	
Vicat Softening Temperature	203 °F	95.0 °C	ASTM D1525
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.0630 in (1.60 mm)	HB	HB	
0.0866 in (2.20 mm)	HB	HB	
0.126 in (3.20 mm)	HB	HB	

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Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL IDES continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

³ Typical properties: these are not to be construed as specifications.

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Korea Kumho Petrochemical Co., Ltd.

Where to Buy

Supplier

Korea Kumho Petrochemical Co., Ltd.

Seoul, Korea

Telephone: 82-2-767-6114

Web: <http://www.kkpc.co.kr/>

Distributor

GAZECHIM PLASTIQUES

GAZECHIM PLASTIQUES is a Pan European distribution company. Contact GAZECHIM PLASTIQUES for availability of individual products by country.

Telephone: +33-4-67-49-55-37

Web: <http://www.gazechim.com/>

Availability: Belgium, France, Italy, Netherlands, Poland, Romania, United Kingdom

Nexeo Solutions - Europe

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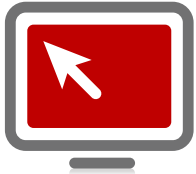
Telephone: +34-93-480-9125

Web: <http://www.nexeosolutions.com/>

Availability: Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Norway, Sweden, Switzerland



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– Birgit Elvardt Bader, Production Manager, Micotron

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– Kevin Chase, Owner & President, Chase Plastics



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