

Technical Data: Acrylonitrile Butadiene Styrene (ABS)

Product Description

ABS Define and Grades

Acrylonitrile Butadiene Styrene (ABS) is a thermoplastic polymer known for its versatility, combining the properties of acrylonitrile for toughness, butadiene for impact resistance, and styrene for a smooth surface finish. It's widely used in injection molding for diverse applications due to its balanced mechanical and aesthetic qualities.

Neway excels in injection molding with a range of ABS (Acrylonitrile Butadiene Styrene) grades, including:

- General-purpose ABS
- High-impact ABS
- Flame-retardant ABS
- UV-stabilized ABS



Features and Applications

Grade	Features	Applications
General-purpose ABS	Versatile, good balance of strength and impact resistance, easy to process.	Consumer products, automotive interior parts, toys.
High-impact ABS	Enhanced toughness and excellent impact resistance.	Safety equipment, automotive exterior components.
Flame-retardant ABS	Self-extinguishing meets fire safety requirements.	Electrical enclosures, appliance housings.
UV-stabilized ABS	Resistant to UV degradation, suitable for outdoor use.	Outdoor signage, automotive exterior parts.

Physical and Mechanical

Property	Density	Tensile Strength	Tensile Elongation	Flexural Modulus	Flexural Strength	Izod Impact Strength	Heat Deflection Temp.	Shrinkage	Hardness
Units	(g/cm ³)	(Mpa)	(%)	(MPa)	(MPa)	(J/m)	(°C)	(%)	(Rockwell R)
General-purpose ABS	1.06	45	25	2300	65	350	75	0.5	95
High-impact ABS	1.05	50	30	2600	75	550	80	0.4	110
Flame-retardant ABS	1.07	47	28	2400	70	400	78	0.6	100
UV-stabilized ABS	1.06	45	26	2200	67	380	76	0.5	95

Note

The above data are reference material science data. This data reference is not binding and is not considered as authoritative test data. If your material requirements are extremely precise, please contact our material engineers. Tel | +86 18926788217 | Web | www.newayprecision.com | Contact Neway



ABS Injection Molding

Acrylonitrile Butadiene Styrene

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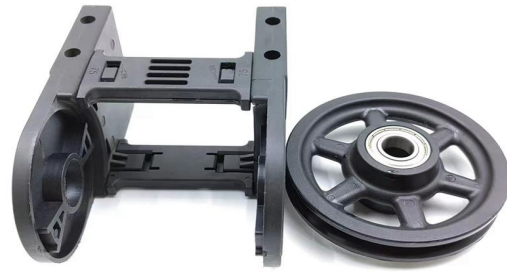
Benefits of Neway ABS Grades

General-purpose ABS

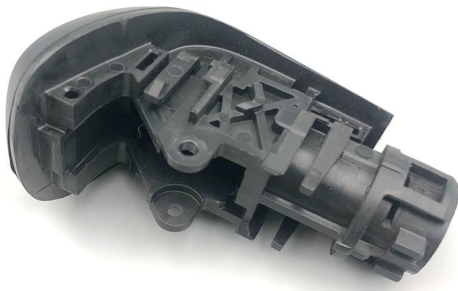
Versatility: General-purpose ABS combines strength, impact resistance, and processability, making it perfect for consumer goods, automotive interior parts, and toys.

Smooth Aesthetics: A smooth surface finish is ideal for products where appearance matters, such as electronic enclosures and appliances.

Ease of Processing: General-purpose ABS is easy to mold and process, streamlining manufacturing processes for consumer electronics and household items.



High-impact ABS



Enhanced Toughness: High-impact ABS boasts exceptional toughness and impact resistance, making it a top choice for safety equipment, automotive exterior components, and rugged industrial products.

Durable Aesthetics: Its resilience and resistance to cracking make it suitable for products requiring extended outdoor use, like outdoor equipment and vehicle parts.

Efficient Processing: High-impact ABS is easy to process, ensuring efficient manufacturing of complex parts such as machinery housings and structural components.

Flame-retardant ABS

Enhanced Safety: Flame-retardant ABS exhibits self-extinguishing properties, making it a prime choice for electrical enclosures, appliance housings, and products requiring stringent fire safety standards.

Diverse Applications: Its fire-resistant nature and durability make it suitable for electronics, automotive, and appliance products.

Manufacturing Efficiency: Flame-retardant ABS is easy to mold and process, ensuring streamlined manufacturing of intricate components and enclosures.



UV-stabilized ABS



Outdoor Resilience: UV-stabilized ABS is designed to resist UV degradation, making it an excellent choice for outdoor signage, automotive exterior parts, and products exposed to sunlight.

Extended Lifespan: Its ability to maintain performance and appearance in harsh UV environments ensures longevity, making it suitable for marine and recreational equipment.

Efficient Manufacturing: UV-stabilized ABS is easy to process, enabling efficient production of intricate components like outdoor enclosures and accessories.

Versatile Performance: This grade's balance of UV resistance and mechanical properties suits diverse applications, from garden furniture to outdoor electronics.

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