



ABS Sheet Solutions

Key Characteristics

Product description

ABS (Acrylonitrile Butadiene Styrene) sheet is the industry's most versatile sheet material. ABS plastic sheet provides a balanced combination of mechanical toughness and impact resistance with an ease of thermoforming and fabrication. PolyOne offers a full range of single-layer and co-extruded multilayer ABS sheet products.

Premium ABS SP-9020 - Exact resin blends are precisely controlled to achieve gloss, impact and total conformance to customer specifications. SP-9020 is manufactured from 100% virgin resin. SP-9020 has high impact and improved low temperature impact.

General Purpose ABS SP-9010 - Is a high impact ABS sheet. Custom manufactured to meet customer size, gauge, color and finish requirements. ABS SP-9010 is also offered in a range of standard gauges in 48" x 96" sheet through our distributor stock sheet program.

Utility ABS SP-9035 - Is a medium impact ABS sheet, which provides good physical properties at an economic price. Color capped material with a "field-of-color" substrate. Utility ABS typically contains post industrial recycled ABS content.

Low Gloss ABS SP-9050 - Is a high impact ABS sheet capped with a low gloss ABS resin.

Technical Properties

Typical Properties

PROPERTY	TEST METHOD	UNITS	PREMIUM SP-9020	GENERAL PURPOSE SP-9010	UTILITY SP-9035	LOW GLOSS SP-9050
Specific gravity	D-792		1.08	1.08	1.08	1.08
Tensile modulus	D-638	psi	310,000	310,000	290,000	280,000
Tensile strength @ yield	D-638	psi	5,400	6,000	4,500	4,500
Flexural modulus	D-790	psi	310,000	340,000	310,000	290,000
Flexural strength @ yield	D-790	psi	9,600	10,000	8,000	9,000
Izon impact (notched)	D-256 (73°F) (-20°F)	ft-lbs/in	8.0	7.5	5.0	7.0
		ft-lbs/in	3.0-4.0	2.5	1.4	2.0
Heat deflection temperature	D-648 (264 psi unannealed)	°F	198	195	190	195
Coefficient of thermal expansion	D-696	in/in/°F x 10 ⁻⁵	4.2-5.6	4.2-5.6	4.2-5.6	4.2-5.6
Hardness	D-785	Rockwell R	96	98	95	81
Gardner Gloss, 60°	D-523	%	90	90	95	16
Mold Shrinkage		in/in	0.005-0.007	0.005-0.007	0.005-0.007	0.005-0.007
Flammability Ratings	MVSS 302		Passes	Passes	Passes	Passes

ABS Sheet Solutions

Processing

Finishing – Our ABS sheet solutions can be fabricated by using standard techniques such as drilling, routing, and cutting with a die, laser or water jet. Mechanical screws and other type of fasteners can be used. ABS sheet can be easily twin sheeted to provide part functionality and superior rigidity.

Availability

Custom Sheet - PolyOne ABS sheet solutions are custom extruded sheet products manufactured to your requirements.

Sheet Size – maximum width is 120"

Gauges – 0.020"-0.375"

Minimum order – 5,000 lbs.

Stock Sheet - General Purpose ABS SP-9010 stock sheet is available for next day service at both our Evanston, Ill., and La Mirada, Calif., facilities.

Standard gauges (black): Black - 0.056", 0.090", 0.118", 0.177" and 0.236"

Standard gauges (white): White - 0.090", 0.118", 0.177" and 0.236"

Standard sheet size: 48" x 96"

Surface Finish: Haircell one side, smooth reverse

Color: Standard Black or Standard White

Minimum Order: One pallet

COLORS & TEXTURES

PolyOne ABS sheet solutions can be color matched to meet your specifications.

Available textures – Smooth, Matte, Level Haircell, Deep Haircell, Calf Grain, Seville, ECL-1. Additional textures are available with restrictions- contact us for details.

WEATHERABLE ABS

ABS sheet solutions are not inherently weatherable long term. However, a weatherable cap can be laminated or co-extruded on ABS providing UV and chemical protection. PolyOne offers a full line of weatherable ABS products. These products are used in a variety of outdoor applications as well as in the sanitary ware industry.

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Curbell Plastics is a proud supplier of PolyOne Corporation materials.

CONTACT INFORMATION

For additional information, please contact PolyOne Designed Structures and Solutions at (888) 721-4242 or visit our web site at www.dss.polyone.com.

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