

HMWPE SP-1510

SP-1510 is a high-molecular-weight, high-density polyethylene sheet with superior environmental-stress crack resistance, high impact strength and rigidity. SP-1510 HMWPE has outstanding chemical resistance. Its low temperature strength and processability further characterize this highly versatile sheet product. SP-1510 is ideal for thermoforming large parts.

FEATURES AND BENEFITS

- Excellent low temperature ductility
- Excellent chemical resistance
- Easy to protect from UV light and long term weathering
- Superior value versus properties and part performance
- Fully recyclable without loss in properties



TARGET MARKETS & APPLICATIONS

- Agricultural Equipment – fenders & liners, livestock feeders, spreaders, and trailer liners.
- Building and Construction – Drainage liners, bump pads, portable toilets
- Packaging – material handling trays, pallets, totes, specialty trays
- Recreational and Leisure - kayaks, paddle boats, ATV fenders, children's slides
- Transportation – bed liners, truck interiors, fender guards, water shields, fender flares

COLORS & TEXTURES

Spartech SP-1510 can be color matched to meet your specifications.

Available textures – Smooth, Matte, Haircell, Deep Haircell, Suede, Seville, Levant I & II.

Sheet can be processed with identification stripping in multiple colors and widths.

AVAILABILITY

Spartech SP-1510 is a custom extruded sheet product manufactured to your requirements.

Sheet Size – maximum width is 120"

Gauges – 0.015"-0.500"

Minimum order – 5,000 lbs.

PROCESSING

Spartech SP-1510 sheet can be thermoformed in standard thermoforming ovens. Sheet material can be formed over wood, composite and aluminum cooled tooling. Aluminum grit blasted tools are preferred. Care must be taken in forming to heat the sheet evenly and not to overheat to control sag. Stock temperatures of approximately 310°F - 360°F are recommended for proper forming. As with any thermoplastic material, care should be taken to account for the coefficient of thermal expansion when considering part fit and tooling design parameters. Mold shrink is 0.016 to 0.028 inch per inch.



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FINISHING

Spartech SP-1510 sheet 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. When working with HMWPE expansion and contraction should always be considered.

TYPICAL PROPERTIES*

PHYSICAL PROPERTIES	TEST	UNIT	DATA
Specific Gravity	ASTM D-792		0.95
Tensile Modulus	ASTM D-638	psi	120,000
Tensile Strength @ Yield	ASTM D-638	psi	3,800
Tensile Strength, Ultimate	ASTM D-638	psi	
Elongation, Ultimate	ASTM D-638	%	>600
Flexural Modulus	ASTM D-790	psi	165,000
Heat Deflection Temperature	ASTM D-648 (66 psi unannealed)	°F	160
Coefficient of Thermal Expansion	ASTM D-696	in/in°F x 10 ⁻⁵	7.0
Hardness	ASTM D-2240	Shore D	68
Flammability ratings	UL94 HB		Passes @0.125"

PROPERTY	PERFORMANCE RATING
Impact Strength	High
Low Temperature Impact Strength	High
Flexural Modulus (Stiffness)	Average
Tensile Strength	Average
Heat Deflection Temperature	Average
Gloss (After Forming)	Average
Chemical Resistance	Very High
UV Resistance	Average
Hardness	Low
Formability	Good

*Typical properties are provided as guidelines and should not be interpreted as specifications

For additional information, please contact Spartech Corporation at (888) 721-4242 or visit www.spartech.com.

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