

SIMONA® HDPE POLYTONE® SHEET

Exceptional UV resistance in solid and multi-color for playgrounds and other outdoor structures.



SIMONA® HDPE Polytone® sets the bar high for its combination of long-term performance, durability, appearance, fabrication ease and consistency.

In outdoor applications, this tough, UV resistant sheet withstands long term exposure to intense sun, salt water and rigorous use. This also makes it ideal for outdoor patio, playground equipment, furniture and accessories. Its impact resistance, easy-to-clean surface and attractive appearance enhance indoor medical, clinical and laboratory cabinetry as well.

Unlike plywood, SIMONA® HDPE Polytone® won't delaminate, rot or splinter, and its integral colors hide scratches and marring that ruin painted surfaces. Its stain resistance, easy-to-clean matte finish and wide spectrum of integral colors further assure long lasting appearance and functionality.

In fabrication, it maintains exceptional flatness and dimensional stability for high production yields and finished part quality. Standard woodworking equipment works well with the material, and fabricators appreciate its advantages especially in thicker gauges for large flat, formed or machined panels.

Advantages

- Resists impacts, extreme weather
- Will not splinter, rot or delaminate
- Integral color hides marring, scratches
- Maintenance-free, easy to clean
- Easy to fabricate using standard woodworking tools

Applications

- Playground structures
- Outdoor furniture and cabinetry
- Sports equipment storage units
- Storage sheds and shed doors
- Partitions
- Basketball backboards
- Recreational signage

Configurations

- Standard sheet sizes and colors
 - 1/2" x 48" x 96"
 - Black/White/Black
 - Red/Yellow/Red
 - 1/2" x 48" x 120"
 - Red
 - Tan
 - Forest Green
 - Play Blue
 - 3/4" x 48" x 120"
 - Black/White/Black
 - Forest Green/Tan/Forest Green
 - Forest Green/White/Forest Green
 - Play Blue/White/Play Blue
 - Play Blue/Yellow/Play Blue
 - Red/White/Red
 - Red/Yellow/Red
 - Tan/Forest Green/Tan
 - Tan/Red/Tan
 - Yellow/Red/Yellow
 - Yellow/Black/Yellow
 - Red
 - Tan
 - Yellow
 - Forest Green
 - Play Blue
- Texture: Matte 2 sides
- Custom colors, sizes: On request



TYPICAL PROPERTIES: SIMONA® HDPE Polytone® Sheet

PROPERTY unit of measure ¹	TEST METHOD	TYPICAL MINIMUM VALUES
Specific Gravity	ASTM D792	0.97
Water Absorption, %	ASTM D570	<0.01
MECHANICAL		
Tensile Strength @ yield	ASTM D638	4,400 psi (30.4 MPa)
Elongation @ break, %	ASTM D638	>300
Flexural Modulus	ASTM D790	240,000 psi (1,655 MPa)
Notched Izod Impact	ASTM D256	2.75 ft-lbs/in. (146.85 J/m)
Shore D Hardness	ASTM D2240	68
THERMAL		
Continuous Service Temperature	Maximum	170 °F (76 °C)
Melting Point	ASTM D3418	267 °F (130.7 °C)
Coeff. of Expansion in./in./°F x 10 ⁻⁵ (mm/mm, °C x 10 ⁻⁵)	ASTM D696	10 x 10 ⁻⁵ in./in., °F (18 x 10 ⁻⁵ mm, °C)
Heat Deflection Temp. @ 66 psi (0.45 MPa)	ASTM D648	167 °F (75 °C)
Heat Deflection Temp. @ 264 psi (1.8 MPa)	ASTM D648	110 °F (43.4 °C)

¹All tests at 73 °F (23 °C) in dry conditions unless otherwise noted.

Fabrication:

SIMONA® Polytone® HDPE Sheet can be sawn, routed, drilled and machined using conventional tools. A detailed fabrication guide is available upon request.

SIMONA® PE, PP AND PVC FOR MACHINING AND FABRICATION

SIMONA® Polypropylene, polyethylene sheet and rod

- SIMONA® Polypropylene homopolymer
- SIMONA® Polypropylene copolymer
 - Natural, white, black, eurogrey
- SIMONA® HDPE and HDPE Boat Board
 - Natural white, black, custom colors
- SIMONA® HDPE Polytone®
 - Outer "skin" color, contrasting color core

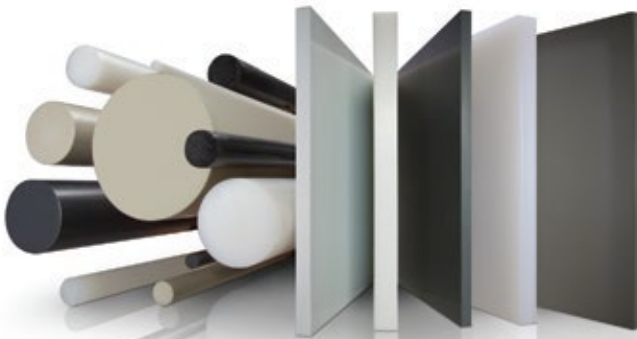
SIMONA® PVC sheet and rod

- SIMONA® PVC Type I & Type II
 - White, black, gray, colors
 - Clear

SIMONA® CPVC sheet

- White, gray
- Clear

UL 94 V-0 and FM 4910 flammability test compliant
PP, PVC and CPVC grades available.



SIMONA offers the widest product range of PVC sheet and rod – FM 4910 rated sheet – chemical resistant materials from PVC, PP and PE to fluoropolymers – orthotics and prosthetics sheet – Boltaron® aircraft sheet – plus proven products for boat building, outdoor furniture and many other industries.

DISCLAIMER AND LIMITATION OF WARRANTY:
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SIMONA AMERICA Industries

101 Power Blvd.
Archbald, PA 18403
Phone 1 866 501 2992
Fax 1 800 522 4857
sales@simona-america.com
www.simona-america.com