

## 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
  - 1/2" x 48" x 120"  
Tan
  - 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  
Tan/Forest Green/Tan  
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 <sup>1</sup>	TEST METHOD	TYPICAL MINIMUM VALUES
Specific Gravity	ASTM D792	0.97
Water Absorption, %	ASTM D570	<0.01
<b>MECHANICAL</b>		
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
<b>THERMAL</b>		
Melting Point	ASTM D3418	267 °F (130.7 °C)
Coeff. of Expansion in./in./°F x 10 <sup>-5</sup> (mm/mm, °C x 10 <sup>-5</sup> )	ASTM D696	10 x 10 <sup>-5</sup> in./in., °F (18 x 10 <sup>-5</sup> 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)

<sup>1</sup>All 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 BOATBOARD
- SIMONA HDPE Polygrain®
- 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.

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