

SIMOBOARD Defender

High density polyethylene sheet engineered to meet the NFPA 286 corner burn test criteria for bathroom partitions



PATENT PENDING



Advantages

- Meets NFPA 286 corner fire test requirements
- Solid color throughout
- Marr and scratch resistant
- Solid polymer composition won't delaminate, rust or dent
- Uniform color and surface consistency
- Maintenance-free, easy to clean
- Easy to route

Applications

- Bathroom partitions, especially in high abuse facilities such as schools, stadiums, parks and airports
- Shower dividers

Configurations

- Sheet sizes
 - 55.5 x 144.5 in.
(1,409.7 x 3,670.3 mm)
- Gauge
 - 0.975 in. (24.77 mm)
- Colors
 - Black, Paisley Black
 - Blueberry, Slate
 - Dawn Grey, Linen
- Texture: Matte 2 sides
- Masking: 2 sides
- Custom colors, sizes: On request

Unmatched Performance. Unmatched Quality. Unmatched Service.

SIMONA AMERICA Industries has engineered the most effective and code compliant patent pending HDPE stall partition sheet on the market – SIMOBOARD Defender. Now you can benefit from the advantages of durable solid plastic for bathroom partitions and not have to compromise for compliance.

SIMOBOARD Defender Meets the Test Criteria... Unmodified

SIMOBOARD Defender is the first NFPA 286 compliant HDPE commercial stall partition sheet. Not all stall walls are tested to the same standard, and we've gone the extra mile to ensure SIMOBOARD Defender meets the code specifications entirely, so that you can be sure that the toilet partitions in your facility meet the most up-to-date fire and safety standards.

What is NFPA 286?

When high density polyethylene (HDPE) is used in an interior finish, it must be tested to comply with NFPA 286 Standard Methods of Fire Tests for Evaluating Contribution to Wall and Ceiling Interior Finish to Room Growth. This code has been adopted in almost all US states and is enforced by building inspectors in new construction.



1. Pretest photo. The test chamber walls are lined with SIMOBOARD Defender sheet. 2. The corner is ignited with 40kW of heat output. 3. The flame does not catch on the ceiling or outer wall and does not ignite the paper target during the 40kW exposure. 4. End of the test. The total smoke released throughout the test did not exceed 1,000 m³.

PROPERTIES SIMOBOARD Defender NFPA 286 Partition Sheet

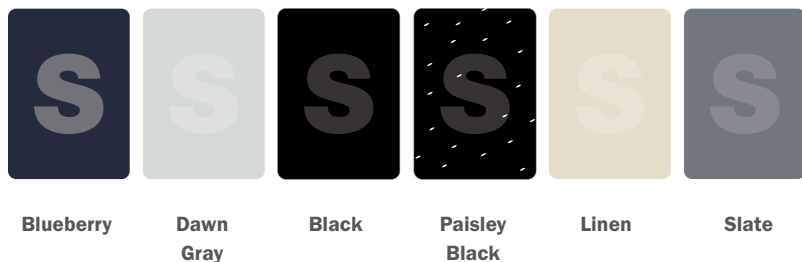
PROPERTY, Units of Measure ¹	Test Method	TYPICAL VALUES	
		SIMOBOARD Defender HDPE	
Specific Gravity	ASTM D792	1.17 g/cm ³	
Water Absorption, %	ASTM D570	<0.01 %	
MECHANICAL			
Tensile Strength @ Yield	ASTM D638	3,300 psi	22.75 MPa
Elongation @ Break, %	ASTM D638	>5%	
Flexural Modulus	ASTM D790	245,000 psi	1,689 MPa
Notched Izod Impact	ASTM D256	0.75 ft-lb/in.	40 J/m
Hardness, Shore D	ASTM D2240	72	
THERMAL			
Continuous Service Temperature	Maximum	170 °F	76.7 °C
Melting Point	ASTM D3418	267 °F	130.7 °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
REGULATORY CODES			
NFPA 286:15	—	PASS	
International Building Code (2015) Chapter 8, Section 803.1.2.1	—	PASS	

¹All tests at 73°F (22.8°C) in dry conditions unless otherwise noted.

Style with Substance in Everything We Do

Commercial partitions don't have to be bland, and you should never have to sacrifice performance, safety, and durability in bathroom stall walls to get colorways that match your design preferences. SIMOBOARD Defender is offered in several dynamic colors. Each color is offered in a dual-sided scratch-resistant matte texture. Custom colors are available with minimum order requirements.

Standard Colors*



*For an exact color demonstration, please request a physical sample chain.

SIMOBOARD Defender HDPE bathroom partition sheet materials meet the unmodified test criteria of NFPA 286:15

Standard Methods of Fire Tests for evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth.

NFPA 286 is a room corner test which requires the following criteria for acceptance:

- During 40 kW exposure, flames should not spread to the ceiling
- The interior finish should not spread to the outer extremity of the sample on any wall or ceiling
- The interior finish should not flashover. Flashover is considered to have occurred when any two of the following criteria were met during the test
 - Peak heat release > 1 MW
 - Floor heat flux > 20 kW/m²
 - Average upper layer temperature > 1,112 °F
 - Flames exiting doorway
 - Auto ignition of paper target
- The peak rate of heat release throughout the NFPA 286 test should not exceed 800 kW
- The total smoke released throughout the test should not exceed 1,000 m³

PATENT PENDING



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