

# POLYSIM™ MATERIAL



## THE NON-OUTGASSING, PERMANENTLY STATIC DISSIPATIVE, CLASS 1 FIRE-RATED MATERIAL

With fire safety, static electricity and molecular contamination growing as concerns in today's critical environments, PolySim™ material from Simplex Isolation Systems is an ideal choice for softwall curtains. PolySim™ was the first clear, flexible softwall material to achieve a Class-1 fire rating. As a proprietary compound — not a PVC — PolySim™ is non-outgassing and non-blooming, allowing for minimal cleaning requirements. The PolySim™ formulation has permanent static dissipation properties, which do not wear off or diminish over time like anti-static vinyls do.

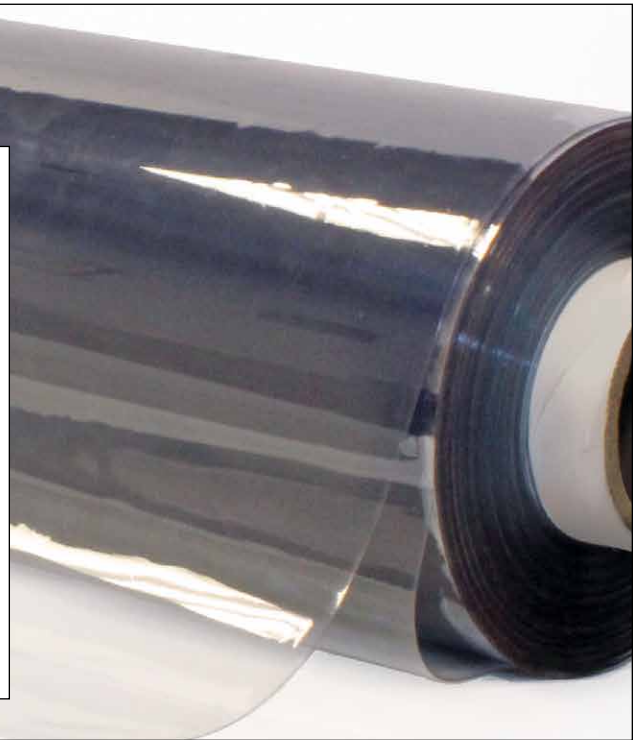
### THE DIFFERENCE IS CLEAR



*The surface of anti-static PVC can bloom over time and develop a viscous coating, requiring periodic cleaning.*



*PolySim™ material is an inherently static dissipative product with no outgassing and no blooming.*

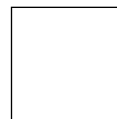


### FEATURES:

- » Class 1 fire-rated—meets NFPA 76 and ASTM E-84 standards
- » Not a PVC; no outgassing or blooming
- » Contains no particulates, plasticizers or phthalates
- » Permanently static dissipative
- » Does not require humidity
- » Available in 40 mil. 12" overlapping strips, 48" overlapping curtains or in a 40 mil. 48" roll for custom sizing
- » Available in clear, black opaque and white opaque

### BENEFITS:

- » Cost-effective alternative to hardwall panels
- » Minimal cleaning requirements
- » Helps meet sustainability goals as an environmentally friendly product
- » Can be RF welded into custom widths to create solid walls



Clear



Black Opaque



White Opaque



With minimal cleaning requirements, PolySim™ softwall panels are ideal in a cleanroom setting.



Inherently static dissipative, PolySim™ fire-rated curtains are the perfect choice for data center softwall containment.



Engineered with superior durability and see-through clarity, PolySim™ is a flexible material for strips to separate working areas.

## MATERIAL SPECIFICATIONS & TESTING INFORMATION

PROPERTY	RESULT	ASTM
Color	Clear / Black / White	
Shore Hardness	90A / 47D	(D-2240) (Shore A)
Specific Gravity	1.16	(D-792)
Brittle Temp	0° F / -17° C	
Minimum Operating Temperature	32° F / 0° C	
UV Stability (In Sunlight)	GOOD	
Tensile Strength	3800 (26)	(D-412) (PSI)
Ultimate Elongation	450%	(D-412)
100% Modulus Elongation	1200 (8)	(D-412) (PSI)
300% Modulus Elongation	2200 (15)	(D-412) (PSI)
Surface Resistivity	5 X 10 <sup>9</sup>	(D-257) (OHMS / SQUARE)
Volume Resistivity	5 X 10 <sup>9</sup>	(D-257) (OHMS-CM)
Static Decay Time by Charge Plate Monitor	50% R.H.	0.1 SECONDS
Flame Test UL 94V0	PASS	
Class 1 - Flame Spread	10	(E-84)
Class 1 - Smoke Density	195	(E-84)
NFPA-701-2004 Test Method 2	PASS	

**NOTE:** Complete test results for outgassing, anti-static and flame spread available upon request. Simplex Isolation Systems believes these test results to be reliable and accurate but cannot warranty for processes or applications beyond its control.

## MODELS & APPLICATIONS

MODEL #	DESCRIPTION	APPLICATION
40480-PS	40 mil. thick, 48" wide roll - PolySim	Can be welded into various widths to make solid walls.
40484-PS	40 mil. thick, 48" wide, 4" overlaps - PolySim	Curtains; Ideal for applications that cannot have a solid wall.
40122-PS	40 mil. thick, 12" wide, 2" overlaps - PolySim	Strips; Ideal for strip doors or softwall containment



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