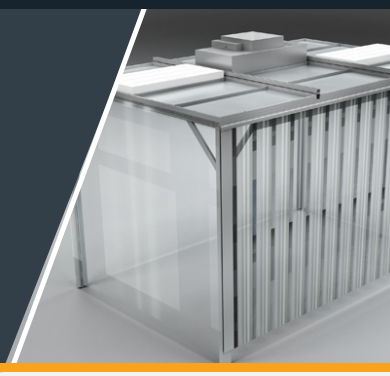
PolySim • Polymer Compound

PolySim is an elastomeric polymer blend of a patented inherently dissipative polymer (IDP) with thermoplastic polyurethane (TPU). The product combines the toughness and flexibility of a TPU with an inherently static dissipative polymer network. This network remains intact through injection molding or extruding, while maintaining the physical properties of a TPU. PolySim alloys are formulated for permanent and consistent ESD protection without compromising cleanliness.



TYPICAL PROPERTIES

CHARACTERISTIC	VALUE
Host Polymer	Polyether TPU
Filler	IDP alloy
Color	Transparent; black opaque; white opaque
Shore Hardness (ASTM D-2240; SHORE A as listed)	90A/47D
Specific Gravity (ASTM D-792)	1.16

MECHANICAL PROPERTIES

CHARACTERISTIC	VALUE
Ultimate Tensile Strength (ASTM D-412; PSI as listed)	3800(26)
Ultimate Elongation (ASTM D-412)	450%
100% Modulus Elongation (ASTM D-412; PSI as listed)	1200(8)
300% Modulus Elongation (ASTM D-412; PSI as listed)	2200 (15)

ELECTRICAL PROPERTIES

CHARACTERISTIC	VALUE
Surface Resistivity (ASTM D-257)	5 × 10° (OHMS/SQUARE)
Volume Resistivity (ASTM D-257)	5 × 10° (OHMS-CM)
Static Decay Time by Charge Plate Monitor (50% R.H.)	0.1 seconds

OTHER PROPERTIES

CHARACTERISTIC	VALUE
Flame Spread (ASTM E84-00A)	10
Smoke Density (ASTM E84-00A)	195
Flame Propagation of Film "PolySim" (NFPA-701-2004, Test Method 2)	Pass

ASTM E84-00A: "Standard Method of Test for Surface Burning Characteristics of Building Materials."

FEATURES & APPLICATIONS

FEATURES

- Permanently static dissipative
- Does not require humidity
- Ultra-clean: low off-gassing, low ionics
- See-through clarity
- No particulates

APPLICATIONS

- Cleanroom softwalls
- Windows
- Doors

HEALTH & SAFETY

CAUTION!

When handling any products, read the manufacturers' container labels and the Article Information Sheets (AIS) for important health, safety, and environmental information.

NOTE:

When using any equipment, always follow the manufacturer's instructions for safe operation.

IMPORTANT:

Complete test results for outgassing, anti-static and flame spread available upon request.

We believe these tests to be reliable and accurate to the best of our knowledge but cannot warranty for processes and applications beyond our control.

*Typical Properties should be considered representative or typical only and should not be used for specification purposes.

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determines the suitability of our materials and suggestions before adopting them on a commercial scale.

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