

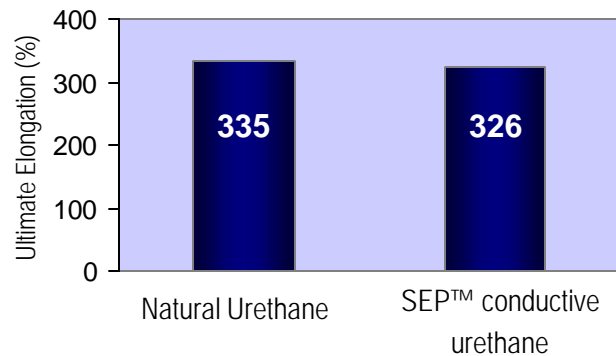
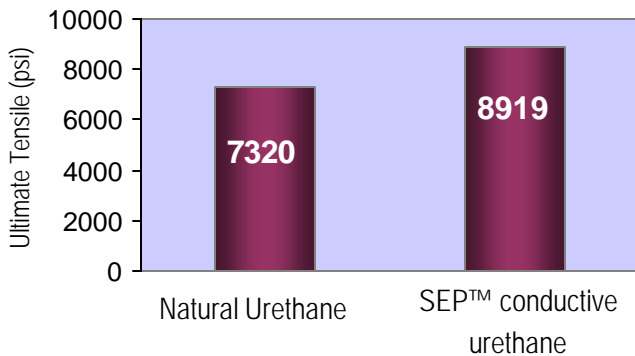


SEP™ CONDUCTIVE POLYURETHANE

Selectively enhanced polymers represent the latest in materials technology whereby selected properties are improved without detrimental trade-offs in other key properties. Foster's new SEP™ conductive urethanes combine static dissipation properties with the unique flexibility and mechanical properties of urethanes. Thermoplastics are inherently nonconductive and must be modified to dissipate electrical charges that can be damaging to component hardware or other electrical devices.

Traditionally, increased electrical dissipation through internally compounded additives, such as carbon, has adversely impacted the design and mechanical properties of urethane components. External static dissipation systems diminish with time and use. Foster uses a blend of highly structured carbon additives and advanced compounding techniques to enhance electrical dissipation without adversely affecting the urethane.

Natural Polyurethane = NOT CONDUCTIVE  
SEP™ Conductive Polyurethane = 10<sup>5</sup> ohms/square Surface Resistivity



**FEATURES**

- Static dissipative material
- High elongation and flexibility
- Excellent tensile strength
- Standard processing
- Applicable for extrusion, molding, and more

**BENEFITS**

- Offers dissipation and electrostatic discharge protection
- Provides abrasion and cut through resistance
- Lower weight & durability as compared with metals or coating
- Reduces design complexity and product costs
- Outstanding reliability

**APPLICATIONS: TUBING, FILM, SHEET, INJECTION MOLDED COMPONENTS AND MORE.**

For more information on these and other advanced polymer compounds, please contact Foster Corporation, a leader in specialty materials for leading edge industries.

**FOSTER CORPORATION**

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# TYPICAL PROPERTIES

## FOSTER'S SEP™ CONDUCTIVE POLYURETHANE (Medical Grade for Injection Molding and Extrusion)

PROPERTIES		TEST METHOD	SEP™ CONDUCTIVE POLYURETHANE	NATURAL POLYURETHANE
Surface Resistivity, ohms/square			10 <sup>5</sup>	Not Conductive
Hardness, Shore D Scale		ASTM D 2240-91	50.2	45.2
Specific Gravity	gm/10 min	ASTM D 792-91	1.24	1.22
Melt Index, gm/10 min	(215°C, 8700 gm)	ASTM D 1238-91	12	41
Tensile Stress, psi @	50% Elongation 100% Elongation	ASTM D 638-91	3,273 4,439	2,030 2,934
Ultimate Tensile Stress, psi		ASTM D 638-91	8,919	7,320
Ultimate Elongation, %		ASTM D 638-91	326	335
Tensile Yield Stress, psi		ASTM D 638-91	8,719	6,040
Tensile Modulus, psi		ASTM D 638-91	13,577	6,141

(Note: The above listed properties are typical values and should not be used as specification values)

## GENERAL PROCESSING INFORMATION

Injection Molding Temperature, °F	380 - 430
Extrusion Temperature, °F	380 - 430

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