

CONSIDER ULTEM™ RESINS AS AN ALTERNATIVE SOLUTION TO SULFONE POLYMERS

ULTEM[™] resin has the potential to serve as an alternative material to sulfone polymers and supports certifications for a variety of industry segments. Leverage the many benefits ULTEM resin offers for your high performance applications.

A POTENTIAL SOLUTION FOR A VARIETY OF INDUSTRIES



MOBILITY



CONNECTORS



WATER



FOOD SERVICE



HEALTHCARE



AEROSPACE



5G ANTENNAS / RADOMES



SEMI-CONDUCTORS

ULTEM RESIN OFFERS:

- Lead times of approximately 4 weeks*
- Up to 55% higher stiffness
- Better dimensional stability vs. PSU
- Excellent property retention at elevated temps: Tg 217°C, HDT @ 1.80 MPa: 190°C
- Up to 17% lower CTE than PES/PPSU
- Chemical resistance
- Metal plating compatibility
- Compatibility with multiple sterilization methods
- Availability for stock shapes & films

CASE STUDY:

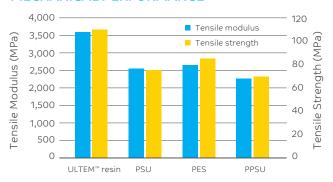
PES TO ULTEM RESIN CONVERSION

Our customer observed improvements in the following areas:

- ~7% lower specific gravity: decreases material needed to make parts
- ~6% production yield increase: ULTEM resin ~94% useable yield vs. PES ~88%
- ~6% increase in machine throughput
- Increased confidence in supply chain

^{*} Lead times subject to change.

MECHANICAL PERFORMANCE



CHEMICAL RESISTANCE

	ULTEM™ resin	PES	PSU	PPSU
Aromatic Hydrocarbons	3	1	1	4
Aliphatic Hydrocarbons	10	10	7	10
Chlorinated Hydrocarbons	3	3	1	5
Alcohols	10	7	7	10
Inorganic Base	1	10	10	10
Acetates / Ketones	4	1	1	4
Acids	7	7	7	7

(1=poor; 10=excellent)

ULTEM RESIN MAY SUPPORT:

Electrical: UL94 VO & 5VA, UL94 F1, UL746B
Telecom: Telcordia GR-326, TIA/EIA-604-10A

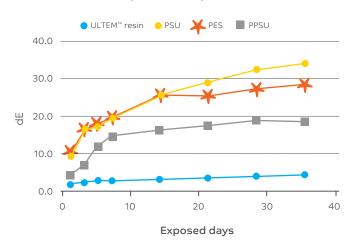
Mobility: FMVSS, IATF 16949, ISO 14001
Food Service: FDA, NSF, EFSA, JHOSPA

Water: NSF, WRAS, KTWSemiconductors: FM

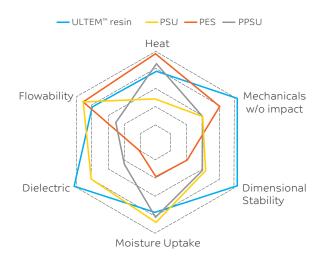
• Healthcare: ISO 10993, FDA, USP Class VI, compatible with multiple sterilization methods

• Aerospace: ABD 0031, BMS, FAR25.853, OSU 55/55 & NBS smoke density tests

UV RESISTANCE (ASTM G26)



ULTEM™ RESIN VS. SULFONE POLYMERS



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