

ULTEM™ RESIN MARKETS AND APPLICATIONS

“ The fierce pace of development and competition in electronics markets drives a constant demand for thinner, lighter, more energy-efficient devices. To meet these challenges, manufacturers need to make products that are cost-effective to produce, yet meet consumers’ expectations for style, ease of use and sustainability. SABIC’s materials are the foundation for the next generation of electronic devices.



ELECTRICAL AND ELECTRONICS

Value Propositions	Potential Benefits
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| <ul style="list-style-type: none"> • High heat and creep resistance • Dimensional stability, low CTE • Humidity and chemical resistance • High stiffness and strength to weight ratio • UL94 V0/5VA, RoHS compliant • Low outgassing, low ionics • Stable DC and low loss factor • Plateability | <ul style="list-style-type: none"> • Weight and cost reduction • Part consolidation • Injection moldable • Capability for thin wall and miniaturized designs |
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Example Applications	Portfolio Suggestions
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| <ul style="list-style-type: none"> • (Fiber optic) connectors and transceivers • RF filters • Sensors and lenses • Circuit breakers • Capacitors | <ul style="list-style-type: none"> • ULTEM™ 1000 series • ULTEM™ 2000 series • ULTEM™ 3452 resin • ULTEM™ CRS series • ULTEM™ UTF120 film • EXTEM™ XH1015 resin • SILTEM™ STM series |
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ULTEM™ RESIN MARKETS AND APPLICATIONS

“ For close to 60 years, SABIC has worked with automakers and their suppliers to optimize solutions with these materials and help the industry overcome some of its toughest challenges. This tradition continues today, with a materials portfolio that is as broad as ever. Chances are we have the right chemistry to meet your needs.”



MOBILITY

Value Propositions	Potential Benefits
<ul style="list-style-type: none"> • Dimensional stability at high temperatures • Lower weight ratio (vs metals) • IR transparency / IR black available • UV resistant (ISO 4892-2A) • Chemical resistance to oil • Plateability 	<ul style="list-style-type: none"> • Weight and cost reduction • Part consolidation • Colorability, one shot process, eliminating paint treatment • Design freedom
Example Applications	Portfolio Suggestions
<ul style="list-style-type: none"> • ADAS systems, radar and lidar • Sensors • Camera holders and brackets • Lighting 	<ul style="list-style-type: none"> ULTEM™ 1000 series ULTEM™ 2000 series ULTEM™ 3452 resin ULTEM™ CRS series ULTEM™ AUT series EXTEM™ XH1015 resin

ULTEM™ RESIN

MARKETS AND APPLICATIONS

“SABIC understands that “close enough” isn’t good enough in the mass transportation industry: you need materials that have been specially engineered to provide precise levels of performance. Heat resistance, impact resistance or chemical resistance must combine with color, aesthetics and manufacturability. Strength and durability must marry with UV resistance and regulatory compliance. For all this and more, turn to SABIC. We speak your high performance language.”



AIRCRAFT & RAIL

Value Propositions	Potential Benefits
<ul style="list-style-type: none"> • Low flame, smoke density and toxicity • OSU, FAR 25.853, ABD0031 compliant • High strength / stiffness to weight ratio • Impact and chemical resistance • Individual lot certification • Custom colors • Multiple forms offering 	<ul style="list-style-type: none"> • Weight and cost reduction • Complex part design and part integration • Ease of processing (vs thermoset) • Improved functionality and space optimization
Example Applications	Portfolio Suggestions
<ul style="list-style-type: none"> • Personal service units • Brackets and fasteners • Cabin interiors: walls, galleys and monuments • Aircraft trolleys • Connectors 	<ul style="list-style-type: none"> • ULTEM™ 9000 series • ULTEM™ 1000 series • ULTEM™ 2000 series • ULTEM™ CRS series • ULTEM™ Foam • ULTEM™ Sheet • ULTEM™ Filament

ULTEM™ RESIN MARKETS AND APPLICATIONS

“ As a materials and technology leader in the healthcare industry, our dedicated, global healthcare team works closely with our customers to help them achieve success with differentiated applications by providing a broad healthcare materials portfolio with a solid Healthcare Product Policy. Our state-of-the-art T&I facilities helps to address the industry’s challenges by developing new technologies and advanced materials.



HEALTHCARE

Value Propositions

- Meets ISO10993, USP VI Biocompatibility
- 134°C autoclavable
- Gamma, EtO compatible
- Chemical resistance to blood, lipids, disinfectants
- High (compression) strength
- Transparent, colorable

Potential Benefits

- Durability, repeated usage after sterilization
- Performance retention after autoclaving
- Color stability (vs PPSU)
- Light weight vs metal

Example Applications

- Sterilization trays
- Surgical equipment
- Dental equipment

Portfolio Suggestions

ULTEM™ HU series

ULTEM™ RESIN

MARKETS AND APPLICATIONS

“ Both in home and in work environments, there is an increasing interest in smart home applications and appliances with the need for solutions in connecting these systems and interoperable standards. Keywords are, and will continue to remain: long-term performance, comfort, serviceability and sustainability.”



CONSUMER & INDUSTRIAL

Value Propositions	Potential Benefits
<ul style="list-style-type: none"> • High heat and creep resistance • Dimensional stability, low CTE • Humidity, chemical and stain resistance • High stiffness and strength to weight ratio • Colorability • Regulatory approvals for food / water • Resilience 	<ul style="list-style-type: none"> • High aesthetics • High quality with long life cycle • Light weight
Example Applications	Portfolio Suggestions
<ul style="list-style-type: none"> • Eyewear frames • Juicer screws • Food service and kitchen ware • Pump impellers • Coffee machine internals 	<ul style="list-style-type: none"> • ULTEM™ 1000 series • ULTEM™ 2000 series • ULTEM™ PW series

ULTEM™ RESIN – MARKETS AND APPLICATIONS



Please consult our website to find more information:

<https://www.sabic.com/en/products/specialties/ultem-resins>

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