



## ULTEM™ Resin 2300F

### Americas: COMMERCIAL

30% Glass fiber filled, standard flow Polyetherimide (Tg 217C). ECO Conforming. US FDA Food Contact compliant in recognized colors.

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 5 mm/min	1720	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	1610	kgf/cm <sup>2</sup>	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	3	%	ASTM D 638
Tensile Modulus, 5 mm/min	94900	kgf/cm <sup>2</sup>	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	2290	kgf/cm <sup>2</sup>	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	91200	kgf/cm <sup>2</sup>	ASTM D 790
Hardness, Rockwell M	114	-	ASTM D 785
Tensile Stress, yield, 5 mm/min	165	MPa	ISO 527
Tensile Stress, break, 5 mm/min	165	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2	%	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	9500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	225	MPa	ISO 178
Flexural Modulus, 2 mm/min	8500	MPa	ISO 178
<b>IMPACT</b>			
Izod Impact, unnotched, 23°C	43	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	8	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	9	cm-kgf/cm	ASTM D 256
Izod Impact, Reverse Notched, 3.2 mm	50	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	101	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	40	kJ/m <sup>2</sup>	ISO 180/1A

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.  
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA.

DISCLAIMER : THE MATERIALS, PRODUCTS AND SERVICES OF SAUDI BASIC INDUSTRIES CORPORATION (SABIC) OR ITS SUBSIDIARIES OR AFFILIATES ( SELLER ) ARE SOLD SUBJECT TO SELLER S STANDARD CONDITIONS OF SALE, WHICH ARE AVAILABLE UPON REQUEST. INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS DOCUMENT ARE GIVEN IN GOOD FAITH. HOWEVER, SELLER MAKES NO EXPRESS OR IMPLIED REPRESENTATION, WARRANTY OR GUARANTEE (i) THAT ANY RESULTS DESCRIBED IN THIS DOCUMENT WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN OR APPLICATION INCORPORATING SELLER S MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS. UNLESS OTHERWISE PROVIDED IN SELLER S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS DESCRIBED IN THIS DOCUMENT. Each user is responsible for making its own determination as to the suitability of Seller s materials, products, services or recommendations for the user s particular use through appropriate end-use and other testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller s Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. Statements by Seller concerning a possible use of any material, product, service or design do not, are not intended to, and should not be construed to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of any material, product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC and brands marked with ™ are trademarks of SABIC or its subsidiaries or affiliates.

© 2015 Saudi Basic Industries Corporation (SABIC).





## ULTEM™ Resin 2300F

### Americas: COMMERCIAL

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>IMPACT</b>			
Izod Impact, notched 80*10*4 -30°C	40	kJ/m <sup>2</sup>	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	10	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL</b>			
Vicat Softening Temp, Rate B/50	227	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	208	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	212	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	210	°C	ASTM D 648
CTE, -40°C to 150°C, xflow	6.E-05	1/°C	ASTM E 831
CTE, -20°C to 150°C, flow	2.E-05	1/°C	ASTM E 831
CTE, 23°C to 150°C, flow	2.E-05	1/°C	ISO 11359-2
CTE, 23°C to 150°C, xflow	6.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	Passes	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	213	°C	ISO 306
Vicat Softening Temp, Rate B/120	220	°C	ISO 306
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	210	°C	ISO 75/Ae
<b>PHYSICAL</b>			
Specific Gravity	1.51	-	ASTM D 792
Water Absorption, 24 hours	0.16	%	ASTM D 570
Water Absorption, equilibrium, 23C	0.9	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm (5)	0.2 - 0.4	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.2 - 0.4	%	SABIC Method
Melt Flow Rate, 337°C/6.6 kgf	5	g/10 min	ASTM D 1238
Density	1.51	g/cm <sup>3</sup>	ISO 1183
Water Absorption, (23°C/sat)	0.9	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.5	%	ISO 62

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.  
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA.

DISCLAIMER : THE MATERIALS, PRODUCTS AND SERVICES OF SAUDI BASIC INDUSTRIES CORPORATION (SABIC) OR ITS SUBSIDIARIES OR AFFILIATES ( SELLER ) ARE SOLD SUBJECT TO SELLER S STANDARD CONDITIONS OF SALE, WHICH ARE AVAILABLE UPON REQUEST. INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS DOCUMENT ARE GIVEN IN GOOD FAITH. HOWEVER, SELLER MAKES NO EXPRESS OR IMPLIED REPRESENTATION, WARRANTY OR GUARANTEE (i) THAT ANY RESULTS DESCRIBED IN THIS DOCUMENT WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN OR APPLICATION INCORPORATING SELLER S MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS. UNLESS OTHERWISE PROVIDED IN SELLER S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS DESCRIBED IN THIS DOCUMENT. Each user is responsible for making its own determination as to the suitability of Seller s materials, products, services or recommendations for the user s particular use through appropriate end-use and other testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller s Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. Statements by Seller concerning a possible use of any material, product, service or design do not, are not intended to, and should not be construed to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of any material, product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC and brands marked with ™ are trademarks of SABIC or its subsidiaries or affiliates.

©2015Saudi Basic Industries Corporation (SABIC).





## ULTEM™ Resin 2300F

### Americas: COMMERCIAL

TYPICAL PROPERTIES <sup>1</sup>	TYPICAL VALUE	Unit	Standard
<b>PHYSICAL</b>			
Melt Volume Rate, MVR at 360°C/5.0 kg	6	cm <sup>3</sup> /10 min	ISO 1133
<b>ELECTRICAL</b>			
Volume Resistivity	3.E+16	Ohm-cm	ASTM D 257
Dielectric Strength, in air, 1.6 mm	24.8	kV/mm	ASTM D 149
Dielectric Strength, in oil, 1.6 mm	30.3	kV/mm	ASTM D 149
Relative Permittivity, 1 kHz	3.7	-	ASTM D 150
Dissipation Factor, 1 kHz	0.0015	-	ASTM D 150
Dissipation Factor, 2450 MHz	0.0053	-	ASTM D 150
<b>FLAME CHARACTERISTICS</b>			
Oxygen Index (LOI)	50	%	ASTM D 2863

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.  
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA.

DISCLAIMER : THE MATERIALS, PRODUCTS AND SERVICES OF SAUDI BASIC INDUSTRIES CORPORATION (SABIC) OR ITS SUBSIDIARIES OR AFFILIATES ( SELLER ) ARE SOLD SUBJECT TO SELLER S STANDARD CONDITIONS OF SALE, WHICH ARE AVAILABLE UPON REQUEST. INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS DOCUMENT ARE GIVEN IN GOOD FAITH. HOWEVER, SELLER MAKES NO EXPRESS OR IMPLIED REPRESENTATION, WARRANTY OR GUARANTEE (i) THAT ANY RESULTS DESCRIBED IN THIS DOCUMENT WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN OR APPLICATION INCORPORATING SELLER S MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS. UNLESS OTHERWISE PROVIDED IN SELLER S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS DESCRIBED IN THIS DOCUMENT. Each user is responsible for making its own determination as to the suitability of Seller s materials, products, services or recommendations for the user s particular use through appropriate end-use and other testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller s Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. Statements by Seller concerning a possible use of any material, product, service or design do not, are not intended to, and should not be construed to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of any material, product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC and brands marked with ™ are trademarks of SABIC or its subsidiaries or affiliates.

©2015Saudi Basic Industries Corporation (SABIC).





## ULTEM™ Resin 2300F

### Americas: COMMERCIAL

PROCESSING PARAMETERS	TYPICAL VALUE	Unit
<b>Injection Molding</b>		
Drying Temperature	150	°C
Drying Time	4 - 6	hrs
Drying Time (Cumulative)	24	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	350 - 400	°C
Nozzle Temperature	345 - 400	°C
Front - Zone 3 Temperature	345 - 400	°C
Middle - Zone 2 Temperature	340 - 400	°C
Rear - Zone 1 Temperature	330 - 400	°C
Mold Temperature	135 - 165	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	40 - 70	rpm
Shot to Cylinder Size	40 - 60	%
Vent Depth	0.025 - 0.076	mm

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.  
(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.  
(4) Internal measurements according to UL standards.  
(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.  
(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA.

DISCLAIMER : THE MATERIALS, PRODUCTS AND SERVICES OF SAUDI BASIC INDUSTRIES CORPORATION (SABIC) OR ITS SUBSIDIARIES OR AFFILIATES ( SELLER ) ARE SOLD SUBJECT TO SELLER S STANDARD CONDITIONS OF SALE, WHICH ARE AVAILABLE UPON REQUEST. INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS DOCUMENT ARE GIVEN IN GOOD FAITH. HOWEVER, SELLER MAKES NO EXPRESS OR IMPLIED REPRESENTATION, WARRANTY OR GUARANTEE (i) THAT ANY RESULTS DESCRIBED IN THIS DOCUMENT WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN OR APPLICATION INCORPORATING SELLER S MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS. UNLESS OTHERWISE PROVIDED IN SELLER S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS DESCRIBED IN THIS DOCUMENT. Each user is responsible for making its own determination as to the suitability of Seller s materials, products, services or recommendations for the user s particular use through appropriate end-use and other testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller s Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. Statements by Seller concerning a possible use of any material, product, service or design do not, are not intended to, and should not be construed to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of any material, product, service or design in a manner that infringes any patent or other intellectual property right.

SABIC and brands marked with ™ are trademarks of SABIC or its subsidiaries or affiliates.

©2015Saudi Basic Industries Corporation (SABIC).

