



ULTEM™ Resin 2212R

Europe-Africa-Middle East: COMMERCIAL

20% Milled glass filled, enhanced flow Polyetherimide (Tg 217C) with internal mold release. Resin is RoHS compliant. UL94 V0 and 5VA listing.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, break, 5 mm/min	75	MPa	ISO 527
Tensile Strain, break, 5 mm/min	8	%	ISO 527
Tensile Modulus, 1 mm/min	4500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	135	MPa	ISO 178
IMPACT			
Izod Impact, unnotched 80*10*4 +23°C	30	kJ/m ²	ISO 180/1U
THERMAL			
Thermal Conductivity	0.28	W/m-°C	ISO 8302
Vicat Softening Temp, Rate B/120	211	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	202	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	189	°C	ISO 75/Ae
Relative Temp Index, Elec	170	°C	UL 746B
Relative Temp Index, Mech w/impact	170	°C	UL 746B
Relative Temp Index, Mech w/o impact	170	°C	UL 746B
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow (2) (5)	0.3 - 0.5	%	SABIC Method
Density	1.43	g/cm ³	ISO 1183
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	0.41	mm	UL 94

(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:

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	150	°C
Drying Time	4 - 6	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	360 - 400	°C
Nozzle Temperature	360 - 400	°C
Front - Zone 3 Temperature	370 - 410	°C
Middle - Zone 2 Temperature	360 - 400	°C
Rear - Zone 1 Temperature	340 - 380	°C
Hopper Temperature	80 - 100	°C
Mold Temperature	140 - 180	°C

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