



# **Europe-Africa-Middle East: COMMERCIAL**

40% Glass fiber filled, standard flow Polyetherimide (Tg 217C). ECO Conforming, UL94 V0 and 5VA listing. WRAS certification in recognized colors.

TYPICAL PROPERTIES 1	TYPICAL VALUE	UNIT	STANDARD
MECHANICAL			
Taber Abrasion, CS-17, 1 kg	20	mg/1000cy	SABIC Method
Tensile Stress, break, 5 mm/min	180	MPa	ISO 527
Tensile Strain, break, 5 mm/min	2	%	ISO 527
Tensile Modulus, 1 mm/min	11500	MPa	ISO 527
Flexural Stress, break, 2 mm/min	240	MPa	ISO 178
Flexural Modulus, 2 mm/min	10000	MPa	ISO 178
Hardness, H358/30	170	MPa	ISO 2039-1
IMPACT			
Izod Impact, unnotched 80*10*4 +23°C	35	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	35	kJ/m²	ISO 180/1U
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	40	kJ/m²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	40	kJ/m²	ISO 179/1eU
THERMAL			
Thermal Conductivity	0.33	W/m-°C	ISO 8302
CTE, 23°C to 150°C, flow	1.5E-05	1/°C	ISO 11359-2
CTE, 23°C to 150°C, xflow	4.5E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate A/50	230	°C	ISO 306
Vicat Softening Temp, Rate B/50	217	°C	ISO 306
Vicat Softening Temp, Rate B/120	225	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	215	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	210	°C	ISO 75/Ae
Relative Temp Index, Elec	170	°C	UL 746B

Source, GMD, Last Update:01/24/2000

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Typical values only. Variations within normal tolerances are possible for variose colours. All values are measured at least after 48 hours storage at 230C/50% relative humidity.
 All properlies, expect the melt volume rate are measured on injection moulded samples. All samples are prepared according to ISO 294.

Only typical data for material selection purpose. Not to be used for part or tool design.
 This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
 Own measurement according to UL.

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TYPICAL PROPERTIES 1	TYPICAL VALUE	UNIT	STANDARD
THERMAL			
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)	0.1 - 0.3	%	SABIC Method
Density	1.61	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.8	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.4	%	ISO 62
Melt Volume Rate, MVR at 360°C/5.0 kg	5	cm <sup>3</sup> /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	1.E+15	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+15	Ohm	IEC 60093
Dielectric Strength, in oil, 0.8 mm	35	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 1.6 mm	26	kV/mm	IEC 60243-1
Dielectric Strength, in oil, 3.2 mm	16	kV/mm	IEC 60243-1
Relative Permittivity, 50/60 Hz	3.5	-	IEC 60250
Relative Permittivity, 1 MHz	3.1	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.002	-	IEC 60250
Dissipation Factor, 1 MHz	0.001	-	IEC 60250
Comparative Tracking Index	150	V	IEC 60112
Comparative Tracking Index, M	100	V	IEC 60112
FLAME CHARACTERISTICS			
UL Recognized, 94V-0 Flame Class Rating (3)	0.25	mm	UL 94
Glow Wire Flammability Index 960°C, passes at	3.2	mm	IEC 60695-2-12
Oxygen Index (LOI)	48	%	ISO 4589

Source, GMD, Last Update:01/24/2000

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<sup>1)</sup> Typical values only. Variations within normal tolerances are possible for variose colours. All values are measured at least after 48 hours storage at 2300.750% relative humidity.

All properties, expect the melt volume rate are measured on injection moulded samples.

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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	370 - 410	°C	
Nozzle Temperature	370 - 410	°C	
Front - Zone 3 Temperature	380 - 420	°C	
Middle - Zone 2 Temperature	370 - 410	°C	
Rear - Zone 1 Temperature	350 - 390	°C	
Hopper Temperature	80 - 100	°C	
Mold Temperature	140 - 180	°C	

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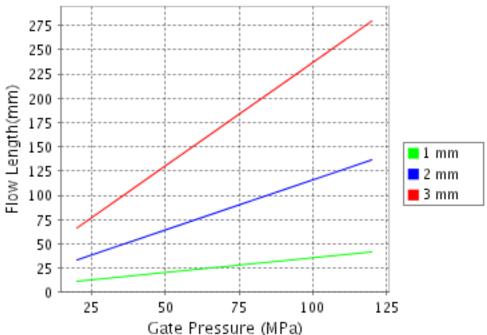


## **Europe-Africa-Middle East: COMMERCIAL**

# CALCULATED FLOW LENGTH INDICATION Moldflow® Radial Flow Analysis

Ultem\* 2400 Melt Temperature: 380°C

Mold Temperature: 160°C



Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.

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