

## Noryl\* Resin EM6100

Americas: COMMERCIAL

PPE+PS blend. Unfilled. Good balance of flow/heat/impact. Dimensional stability. Paint adhesion. Suitable for the automotive interior market: HVAC housings, radio components. MS-DB424, WSB-M4D844-A9, GMP.PPE.007.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, break	40	MPa	ASTM D 638
Tensile Stress, yld, Type I, 50 mm/min	43	MPa	ASTM D 638
Tensile Strain, yield	3	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	65	%	ASTM D 638
Tensile Modulus, 5 mm/min	1900	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	67	MPa	ASTM D 790
Flexural Stress, yld, 2.6 mm/min, 100 mm span	66	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2100	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	2000	MPa	ASTM D 790
Tensile Stress, yield	42	MPa	ISO 527
Tensile Stress, break	40	MPa	ISO 527
Tensile Strain, yield	2.8	%	ISO 527
Tensile Strain, break	60	%	ISO 527
Tensile Modulus, 1 mm/min	2050	MPa	ISO 527
Flexural Stress	65	MPa	ISO 178
Flexural Modulus	2100	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	453	J/m	ASTM D 256
Izod Impact, notched, -30°C	250	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	36	J	ASTM D 3763
Instrumented Impact Energy @ peak, -30	24	J	ASTM D 3763
Instrumented Impact Total Energy, 23°C	42	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	33	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	15	kJ/m <sup>2</sup>	ISO 180/1A
Charpy Impact, notched, 23°C	33	kJ/m <sup>2</sup>	ISO 179/2C
Charpy Impact, notched, -30°C	19	kJ/m <sup>2</sup>	ISO 179/2C
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	124	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	106	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	115	°C	ASTM D 648
CTE, 0°C to 100°C, flow	1.17E-04	1/°C	ASTM E 831
Vicat Softening Temp, Rate B/50	119	°C	ISO 306
Vicat Softening Temp, Rate B/120	123	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	126	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	110	°C	ISO 75/Af
Relative Temp Index, Elec	50	°C	UL 746B
Relative Temp Index, Mech w/impact	50	°C	UL 746B
Relative Temp Index, Mech w/o impact	50	°C	UL 746B

PHYSICAL	Value	Unit	Standard
Specific Gravity	1.05	-	ASTM D 792
Water Absorption, 24 hours	0.2	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.7	%	SABIC Method
Melt Flow Rate, 280°C/5.0 kgf	15	g/10 min	ASTM D 1238
Melt Volume Rate, MVR at 280°C/5.0 kg	15	cm <sup>3</sup> /10 min	ISO 1133
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Recognized, 94HB Flame Class Rating (3)	1.49	mm	UL 94

Source GMD, last updated:08/09/2004

## Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	95 - 105	°C
Drying Time	3 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	265 - 295	°C
Nozzle Temperature	265 - 295	°C
Front - Zone 3 Temperature	255 - 295	°C
Middle - Zone 2 Temperature	245 - 290	°C
Rear - Zone 1 Temperature	230 - 280	°C
Mold Temperature	65 - 95	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	20 - 100	rpm
Shot to Cylinder Size	30 - 70	%
Vent Depth	0.038 - 0.051	mm

Source GMD, last updated:08/09/2004

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(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.

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