

**Xytron™ G3080R**
*Envalior - Polyphenylene Sulfide*
**General Information**
**Product Description**

30% Glass Fiber Reinforced, Flame Retardant, Excellent Mold Release, Low Flash

Design Challenge

Degradation &amp; Stability | Chemical stability

**General**

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• Flame Retardant • Good Mold Release • Minimal Flash
Processing Method	• Injection Molding
Resin ID	• PPS-GF30

**Properties <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density	1.55	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.65	%	
Flow	0.21	%	
Water Absorption (24 hr, 73°F)	0.050	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.050	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			ISO 527-1
--	1.74E+6	psi	
-40°F	1.74E+6	psi	
248°F	682000	psi	
320°F	508000	psi	
392°F	428000	psi	
Tensile Stress			ISO 527-2
Break	24700	psi	
Break, -40°F	26800	psi	
Break, 248°F	10200	psi	
Break, 320°F	7980	psi	
Break, 392°F	6530	psi	
Tensile Strain			ISO 527-2
Break	2.0	%	
Break, -40°F	2.0	%	
Break, 248°F	4.6	%	
Break, 320°F	5.3	%	
Break, 392°F	5.4	%	
Flexural Modulus			ISO 178
--	1.45E+6	psi	
248°F	653000	psi	
320°F	479000	psi	
392°F	421000	psi	
Flexural Stress			ISO 178
--	34800	psi	



248°F	13900 psi		
320°F	9860 psi		
392°F	8120 psi		
Weldline Strain (0.16 in)	0.85 %		ISO 527-2
Weldline Strength (0.16 in)	10878 psi		ISO 527-2
<b>Impact</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Charpy Notched Impact Strength			ISO 179/1eA
-22°F	3.8	ft·lb/in <sup>2</sup>	
73°F	4.3	ft·lb/in <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	27	ft·lb/in <sup>2</sup>	
73°F	28	ft·lb/in <sup>2</sup>	
<b>Hardness</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Rockwell Hardness			ISO 2039-2
M-Scale	100		
R-Scale	120		
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load (66 psi, Unannealed)	536	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	509	°F	ISO 75-2/A
Deflection Temperature Under Load (1160 psi, Unannealed)	365	°F	ISO 75-2/C
Glass Transition Temperature <sup>2</sup>	194	°F	ISO 11357-2
Melting Temperature <sup>2</sup>	536	°F	ISO 11357-3
CLTE - Flow			ISO 11359-2
--	1.0E-5	in/in/°F	
-- <sup>3</sup>	1.0E-5	in/in/°F	
CLTE - Transverse			ISO 11359-2
--	2.8E-5	in/in/°F	
-- <sup>3</sup>	6.7E-5	in/in/°F	
RTI Elec			UL 746B
0.016 in	266	°F	
0.12 in	266	°F	
RTI Imp			UL 746B
0.016 in	266	°F	
0.12 in	266	°F	
RTI Str			UL 746B
0.016 in	266	°F	
0.12 in	266	°F	
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Surface Resistivity	> 1.0E+15	ohms	IEC 62631-3-2
Volume Resistivity	> 1.0E+13	ohms·m	IEC 62631-3-1
Electric Strength	860	V/mil	IEC 60243-1
Relative Permittivity			IEC 61189-2-721
1.00 GHz	3.80		
5.00 GHz	3.80		
Dissipation Factor			IEC 61189-2-721
1.00 GHz	3.0E-3		
5.00 GHz	4.5E-3		
Comparative Tracking Index	175	V	IEC 60112
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flammability Classification (0.12 in)	V-0		IEC 60695-11-10, -20

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 10°C/min

<sup>3</sup> above T<sub>g</sub>

