

## Technical Data Sheet

**Polyflam RMMK 125 NAZ81608 GREY**

Acrylonitrile Butadiene Styrene + PA

**Product Description**

Flame-retardant ABS/PA blend; without PBDE; high stress crack resistance

<b>Processing Method</b>	Injection Molding
<b>Attribute</b>	High ESCR (Environmental Stress Cracking Resistance)
<b>Additive</b>	Flame Retardant

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Melt Volume Flow Rate, (250 °C/5.0 kg)	12	cm <sup>3</sup> /10 min	ISO 1133
Density, (Method A)	1.30	g/cm <sup>3</sup>	ISO 1183
<b>Mechanical</b>			
Tensile Stress at Yield			
(Type 1A, 50 mm/min)	52.0	MPa	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	29.0	MPa	ISO 527-2
Tensile Strain at Yield			
(Type 1A, 50 mm/min)	3.0	%	ISO 527-2
(Type 1A, 50 mm/min) - Conditioned	16	%	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	2500	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	940	MPa	ISO 527-1
<b>Impact</b>			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	12	kJ/m <sup>2</sup>	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	9.0	kJ/m <sup>2</sup>	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	21	kJ/m <sup>2</sup>	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	No Break		ISO 179
(-30 °C, Type 1, Edgewise)	No Break		ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179
(-30 °C, Type 1, Edgewise) - Conditioned	No Break		ISO 179
<b>Hardness</b>			
Ball Pressure Test, (125 °C)	Pass		IEC 60695-10-2
<b>Thermal</b>			

<b>Vicat Softening Temperature</b>			
(B (50N), 50 °C/h)	156	°C	ISO 306
(A (10N), 50 °C/h)	190	°C	ISO 306
<b>Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)</b>			
	113	°C	ISO 75-2/B
<b>Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)</b>			
	60.0	°C	ISO 75-2/A
<b>RTI Elec</b>			
(1.5 mm)	60.0	°C	UL 746B
(3.0 mm)	60.0	°C	UL 746B
<b>RTI Imp</b>			
(1.5 mm)	60.0	°C	UL 746B
(3.0 mm)	60.0	°C	UL 746B
<b>RTI Str</b>			
(1.5 mm)	60.0	°C	UL 746B
(3.0 mm)	60.0	°C	UL 746B
<b>Electrical</b>			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Comparative Tracking Index (CTI)	200	V	IEC 60112
Surface Resistivity	>1.0E+15	ohm	IEC 60093
<b>Flammable</b>			
<b>Burning Rate</b>			
(2.00 mm, Self-Extinguishing)	0.0	mm/min	FMVSS 302
(2.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
<b>Glow Wire Flammability Index</b>			
(0.75 mm)	960	°C	IEC 60695-2-12
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
<b>Glow Wire Ignition Temperature</b>			
(1.5 mm)	750	°C	IEC 60695-2-13
(3.0 mm)	750	°C	IEC 60695-2-13
Oxygen Index	31	%	ISO 4589-2
<b>UL Information</b>			
<b>Flame Rating</b>			
(1.5 mm)	V-0		UL 94
(3.0 mm)	V-0		UL 94
(2.0 mm)	5VA		UL 94
<b>Flammability Classification</b>			
(1.5 mm)	V-0		IEC 60695-11-10, -20
(2.0 mm)	5VA		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
UL File Number	E86615		

<b>Injection Parameters</b>	<b>Nominal Value</b>	<b>Units</b>
Drying Time	4.0 to 6.0	hr
Drying Temperature	70 to 80	°C
Suggested Max Moisture	0.040 to 0.10	%
Screw Speed	<250	mm/sec
Processing (Melt) Temp	240 to 260	°C
Injection Rate	Slow-Moderate	
Back Pressure	5.00 to 10.0	MPa
Mold Temperature	40 to 80	°C