

Technical Data Sheet

**Schulaketon GF30 4DE ORE962575**



Polyketone, Aliphatic

**Product Description**

30% glass fiber reinforced aliphatic Polyketon, flame-retardant, halogen free. Available in orange colour.

<b>Processing Method</b>	Injection Molding
<b>Attribute</b>	Halogen Free; PFAS free
<b>Additive</b>	Flame Retardant
<b>Filler/Reinforcement</b>	Glass Fiber, 30%
<b>Resin ID</b>	PK GF30 FR(40)

Typical Properties	Nominal Value	Units	Test Method
<b>Physical</b>			
Melt Volume Flow Rate, (240 °C/5.0 kg)	17	cm <sup>3</sup> /10 min	ISO 1133
Density, (Method A)	1.45	g/cm <sup>3</sup>	ISO 1183
<b>Mechanical</b>			
Tensile Strain at Break, (Type 1A, 5 mm/min)	3.5	%	ISO 527-2
Tensile Stress at Break, (Type 1A, 5 mm/min)	130	MPa	ISO 527-2
Tensile Modulus, (1 mm/min, Type 1A)	8000	MPa	ISO 527-1
<b>Impact</b>			
Charpy Impact Strength - Notched, (23 °C, Type 1, Edgewise, Notch A)	13	kJ/m <sup>2</sup>	ISO 179
Charpy Impact Strength - Unnotched, (23 °C, Type 1, Edgewise)	55	kJ/m <sup>2</sup>	ISO 179
<b>Thermal</b>			
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	209	°C	ISO 75-2/A
RTI Elec			
(1.6 mm)	50.0	°C	UL 746B
(3.0 mm)	50.0	°C	UL 746B
(0.8 mm)	50.0	°C	UL 746B
(0.40 mm)	50.0	°C	UL 746B
(0.60 mm)	50.0	°C	UL 746B
RTI Imp			
(1.6 mm)	50.0	°C	UL 746B
(3.0 mm)	50.0	°C	UL 746B
(0.8 mm)	50.0	°C	UL 746B
(0.40 mm)	50.0	°C	UL 746B
(0.60 mm)	50.0	°C	UL 746B

RTI Str			
(1.6 mm)	50.0	°C	UL 746B
(3.0 mm)	50.0	°C	UL 746B
(0.8 mm)	50.0	°C	UL 746B
(0.40 mm)	50.0	°C	UL 746B
(0.60 mm)	50.0	°C	UL 746B
<b>Electrical</b>			
Volume Resistivity	>1.0E+13	ohm*m	IEC 62631-3-1
Dielectric Strength, (in Air, 1.00 mm, 23 °C)	38	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI)	600	V	IEC 60112
High Amp Arc Ignition			UL 746A
Surface Resistivity	>1.0E+15	ohm	IEC 60093
<b>Flammable</b>			
Hot-wire Ignition (HWI)			UL 746A
Burning Rate			
(2.00 mm, Self-Extinguishing)	0.0	mm/min	FMVSS 302
(2.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
Glow Wire Flammability Index			
(3.0 mm)	960	°C	IEC 60695-2-12
(0.60 mm)	960	°C	IEC 60695-2-12
(0.8 mm)	960	°C	IEC 60695-2-12
(1.6 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(3.0 mm)	825	°C	IEC 60695-2-13
(1.6 mm)	850	°C	IEC 60695-2-13
(0.60 mm)	825	°C	IEC 60695-2-13
(0.8 mm)	825	°C	IEC 60695-2-13
<b>UL Information</b>			
Flame Rating			
(1.6 mm)	V-0		UL 94
(1.6 mm)	5VA		UL 94
(3.0 mm)	V-0		UL 94
(3.0 mm)	5VA		UL 94
(0.8 mm)	V-0		UL 94
(0.40 mm)	V-0		UL 94
(0.60 mm)	V-0		UL 94
Flammability Classification			
(0.40 mm)	V-0		IEC 60695-11-10, -20
(0.60 mm)	V-0		IEC 60695-11-10, -20
(0.8 mm)	V-0		IEC 60695-11-10, -20
(1.6 mm)	5VA		IEC 60695-11-10, -20
(1.6 mm)	V-0		IEC 60695-11-10, -20
(3.0 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	2.0 to 4.0	hr
Drying Temperature	80	°C
Suggested Max Moisture	0.15	%
Screw Speed	<250	mm/sec
Processing (Melt) Temp	220 to 230	°C
Injection Rate	Slow- Moderate	
Back Pressure	2.00 to 8.00	MPa
Mold Temperature	60 to 100	°C