

Technical Data Sheet

RW *Schulamid* 66 GBF 3020 FR 4 BLACK



Polyamide 66

Product Description

30% glass fibre and glass beads reinforced flame-retardant Polyamide 66 grade with low warpage high mechanical stability and high dimension stability, without PBDE

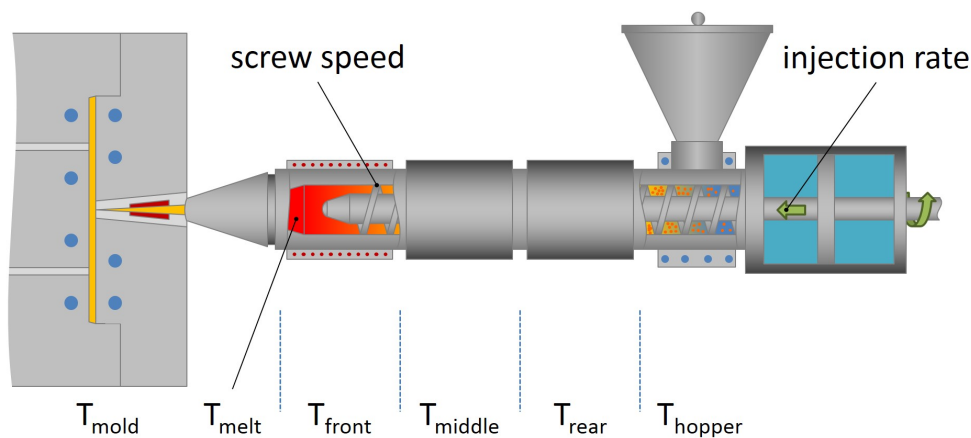
Regulatory Status

For regulatory compliance information, see RW *Schulamid* 66 GBF 3020 FR 4 BLACK [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	Africa-Middle East; Asia-Pacific; Europe; Latin America; North America
Processing Method	Injection Molding
Attribute	Low Warpage
Additive	Flame Retardant
Filler/Reinforcement	Glass Bead\Glass Fiber, 30%
Resin ID	PA66

Typical Properties	Nominal Value	Units	Test Method
Physical			
Density, (Method A)	1.59	g/cm ³	ISO 1183
Mechanical			
Tensile Strain at Break			
(Type 1A, 5 mm/min)	2.5	%	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	4.5	%	ISO 527-2
Tensile Stress at Break			
(Type 1A, 5 mm/min)	140	MPa	ISO 527-2
(Type 1A, 5 mm/min) - Conditioned	92.0	MPa	ISO 527-2
Tensile Modulus			
(1 mm/min, Type 1A)	8700	MPa	ISO 527-1
(1 mm/min, Type 1A) - Conditioned	5000	MPa	ISO 527-1
Impact			
Charpy Impact Strength - Notched			
(23 °C, Type 1, Edgewise, Notch A)	5.5	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise, Notch A)	4.5	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise, Notch A) - Conditioned	7.0	kJ/m ²	ISO 179
Charpy Impact Strength - Unnotched			
(23 °C, Type 1, Edgewise)	42	kJ/m ²	ISO 179
(-30 °C, Type 1, Edgewise)	38	kJ/m ²	ISO 179
(23 °C, Type 1, Edgewise) - Conditioned	51	kJ/m ²	ISO 179
Hardness			
Ball Pressure Test, (200 °C)	Pass		IEC 60695-10-2
Thermal			

Deflection Temperature Under Load Unannealed (0.45 MPa), (Flatwise)	>250	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa), (Flatwise)	224	°C	ISO 75-2/A
RTI Elec			
(1.5 mm)	65.0	°C	UL 746B
(3.0 mm)	65.0	°C	UL 746B
RTI Imp			
(1.5 mm)	65.0	°C	UL 746B
(3.0 mm)	65.0	°C	UL 746B
RTI Str			
(1.5 mm)	65.0	°C	UL 746B
(3.0 mm)	65.0	°C	UL 746B
Electrical			
Volume Resistivity	>9.9E+13	ohm*m	IEC 62631-3-1
Dissipation Factor, (100 Hz)	0.049		IEC 60250
Dielectric Strength	22	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI), (Solution A)	175	V	IEC 60112
Surface Resistivity	>7.8E+12	ohm	IEC 60093
Relative Permittivity			
(100 Hz)	4.81		IEC 60250
(1 MHz)	3.85		IEC 60250
Flammable			
Burning Rate, (2.00 mm, Self-Extinguishing)	0.0	mm/min	ISO 3795
Glow Wire Flammability Index			
(1.5 mm)	960	°C	IEC 60695-2-12
(3.0 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			
(1.5 mm)	750	°C	IEC 60695-2-13
(3.0 mm)	750	°C	IEC 60695-2-13
Oxygen Index	38	%	ISO 4589-2
UL Information			
Flame Rating			
(1.5 mm)	V-0		UL 94
(3.0 mm)	V-0		UL 94
Flammability Classification			
(1.5 mm)	V-0		IEC 60695-11-10, -20
(3.0 mm)	V-0		IEC 60695-11-10, -20
UL File Number	E86615		



Injection Parameters	Nominal Value	Units
Drying Time	4.0 to 6.0	hr
Drying Temperature	80	°C
Suggested Max Moisture	0.040 to 0.10	%
Screw Speed	<250	mm/sec
Processing (Melt) Temp	270 to 300	°C
Injection Rate	Slow-Moderate	
Back Pressure	20 to 80	bar
Mold Temperature	60 to 90	°C

Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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