

Technical Data Sheet

**Matrixx 15S3324DC**

Polypropylene Copolymer
LyondellBasell Industries
Engineering Plastics

Product Description

15S3324DC is a 30% Fiberglass Reinforced, Flame Retardant Polypropylene Copolymer, Black

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Features	• Flame Retardant
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.45	1.45 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	4.0 g/10 min	4.0 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
73°F (23°C)	951000 psi	6560 MPa	ASTM D638
73°F (23°C)	956000 psi	6590 MPa	ISO 527-1
Tensile Strength			
Break, 73°F (23°C) ¹	7510 psi	51.8 MPa	ASTM D638
Break, 73°F (23°C)	7600 psi	52.4 MPa	ISO 527-2/5
Tensile Elongation			
Break, 73°F (23°C) ¹	< 7.0 %	< 7.0 %	ASTM D638
Break, 73°F (23°C)	< 7.0 %	< 7.0 %	ISO 527-2/5
Flexural Modulus - Tangent			
73°F (23°C) ²	924000 psi	6370 MPa	ASTM D790
73°F (23°C) ³	1.05E+6 psi	7230 MPa	ISO 178
Flexural Stress			
73°F (23°C) ³	10400 psi	71.4 MPa	ISO 178
Yield, 73°F (23°C) ²	9820 psi	67.7 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179
-22°F (-30°C)	9.0 ft·lb/in ²	19 kJ/m ²	
73°F (23°C)	19 ft·lb/in ²	40 kJ/m ²	
Notched Izod Impact			ASTM D256
-22°F (-30°C)	2.1 ft·lb/in	110 J/m	
73°F (23°C)	3.6 ft·lb/in	190 J/m	
Instrumented Dart Impact ⁴			ASTM D3763
-22°F (-30°C), Total Energy, Brittle Failure	118 in·lb	13.4 J	
73°F (23°C), Total Energy, Brittle Failure	122 in·lb	13.8 J	

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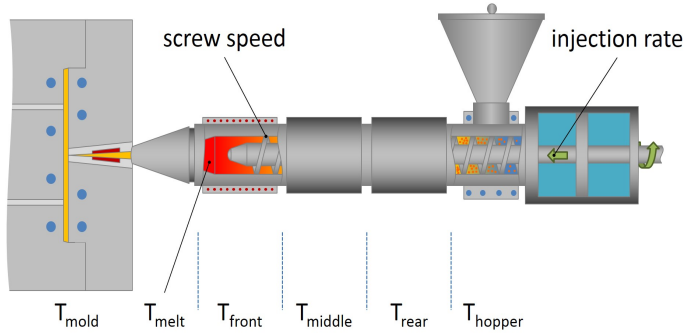
Thermal	Nominal Value (English)		Nominal Value (SI)	Test Method
Deflection Temperature Under Load				
66 psi (0.45 MPa), Unannealed	295 °F		146 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	311 °F		155 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	260 °F		127 °C	ASTM D648
264 psi (1.8 MPa), Unannealed	267 °F		131 °C	ISO 75-2/A
CLTE				ASTM E831
Flow : 95°F (35°C)	1.1E-5 in/in/°F		2.0E-5 cm/cm/°C	
Transverse : 95°F (35°C)	7.0E-5 in/in/°F		1.3E-4 cm/cm/°C	
RTI Str				UL 746B
0.06 in (1.5 mm)	149 °F		65.0 °C	
0.10 in (2.5 mm)	149 °F		65.0 °C	
0.12 in (3.0 mm)	149 °F		65.0 °C	
Flammability	Nominal Value (English)		Nominal Value (SI)	Test Method
Flame Rating				UL 94
0.06 in (1.5 mm), Black	V-1		V-1	
0.10 in (2.5 mm), Black	•	V-0	•	V-0
	•	5VA	•	5VA
0.12 in (3.0 mm), Black	•	V-0	•	V-0
	•	5VA	•	5VA

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	180 °F	82 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Rear Temperature	350 to 400 °F	177 to 204 °C
Middle Temperature	350 to 440 °F	177 to 227 °C
Front Temperature	350 to 440 °F	177 to 227 °C
Nozzle Temperature	350 to 440 °F	177 to 227 °C
Processing (Melt) Temp	350 to 440 °F	177 to 227 °C
Mold Temperature	90 to 150 °F	32 to 66 °C
Injection Rate	Moderate	Moderate
Back Pressure	< 100 psi	< 0.689 MPa
Screw Speed	20 to 60 rpm	20 to 60 rpm
Cushion	0.250 to 0.500 in	6.35 to 12.7 mm

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Notes

¹ 0.20 in/min (5.0 mm/min)

² 0.051 in/min (1.3 mm/min)

³ 0.079 in/min (2.0 mm/min)

⁴ 7.22 ft/sec (2.20 m/sec)

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.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

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

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