

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

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
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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
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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
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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.