

LNP™ KONDUIT™ DTK22 compound

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

Thermally conductive, high impact, mineral filled PC composition

Also known as: LNP* KONDUIT* Compound DTK22

Product reorder name: DTK22

General Information			
Filler / Reinforcement	Mineral		
Features	High Impact Resistance		
	Thermally Conductive		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.46	g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.41	%	
Across Flow : 24 hr	0.39	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	3830	MPa	ASTM D638
--	3880	MPa	ISO 527-2/1
Tensile Strength			
Break ²	41.0	MPa	ASTM D638
Break	42.0	MPa	ISO 527-2/5
Tensile Elongation			
Break ³	5.0	%	ASTM D638
Break	4.1	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁴	3160	MPa	ASTM D790
-- ⁵	4180	MPa	ISO 178
Flexural Stress			
--	81.0	MPa	ISO 178
Yield, 50.0 mm Span ⁶	79.0	MPa	ASTM D790
Break, 50.0 mm Span ⁷	77.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	150	J/m	ASTM D256
Unnotched Izod Impact (23°C)	700	J/m	ASTM D4812
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			

0.45 MPa, Unannealed, 3.20 mm	127	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ⁸	128	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 6.40 mm	121	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ⁹	119	°C	ISO 75-2/Af
Thermal Conductivity			
-- ¹⁰	0.60	W/m/K	ASTM E1461
-- ¹¹	2.0	W/m/K	ASTM E1461
-- ¹²	0.30	W/m/K	ISO 22007-2
-- ¹³	1.3	W/m/K	ISO 22007-2
Electrical	Nominal Value	Test Method	
Dielectric Constant (1.10 GHz)	3.66	ASTM E57-83	
Dissipation Factor (1.10 GHz)	9.4E-3	ASTM E57-83	
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 to 4.0	hr	
Drying Time, Maximum	48	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 to 60	%	
Rear Temperature	249 to 271	°C	
Middle Temperature	260 to 282	°C	
Front Temperature	271 to 293	°C	
Nozzle Temperature	266 to 288	°C	
Processing (Melt) Temp	271 to 293	°C	
Mold Temperature	71.1 to 93.3	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	40 to 70	rpm	
Vent Depth	0.025 to 0.076	mm	
NOTE			
1.	5.0 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	1.3 mm/min		
5.	2.0 mm/min		
6.	1.3 mm/min		
7.	1.3 mm/min		
8.	80*10*4 mm		
9.	80*10*4 mm		
10.	through-plane, 10*10*3mm sample		
11.	in-plane, ø25*0.4mm disc		
12.	through-plane, 60*60*3mm plaque		
13.	in-plane, 60*60*3mm plaque		

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