



LNP™ KONDUIT™ Compound DTK22

Asia Pacific: COMMERCIAL

Also known as: LNP™ KONDUIT™ Compound EXKD1306

Product reorder name: DTK22

Thermally conductive, high impact, mineral filled PC composition

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	410	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	5	%	ASTM D 638
Tensile Modulus, 5 mm/min	39000	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	800	kgf/cm ²	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	780	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	32200	kgf/cm ²	ASTM D 790
Tensile Stress, break, 5 mm/min	42	MPa	ISO 527
Tensile Strain, break, 5 mm/min	4.1	%	ISO 527
Tensile Modulus, 1 mm/min	3880	MPa	ISO 527
Flexural Stress, break, 2 mm/min	81	MPa	ISO 178
Flexural Modulus, 2 mm/min	4180	MPa	ISO 178
Impact Strength	13.2 - 48.9	cm-kgf/cm ²	ISO R179
IMPACT			
Izod Impact, unnotched, 23°C	71	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	15	cm-kgf/cm	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	41	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	13	kJ/m ²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm	127	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	121	°C	ASTM D 648
CTE, 40°C to 120°C, flow	5.3E-05	1/°C	ASTM E 831
CTE, 40°C to 120°C, xflow	8.5E-05	1/°C	ASTM E 831
Thermal Conductivity through-plane, 60*60*3mm plaque	0.3	W/m-K	ISO 22007-2



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THERMAL			
Thermal Conductivity in-plane, 60*60*3mm plaque	1.3	W/m-K	ISO 22007-2
Thermal Conductivity through-plane, 10*10*3mm sample	0.6	W/m-K	ASTM E 1461-07
Thermal Conductivity in-plane, ø25*0.4mm disc	2	W/m-K	ASTM E 1461-07
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	128	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	119	°C	ISO 75/Af
Relative Temp Index, Elec	80	°C	UL 746B
Relative Temp Index, Mech w/impact	80	°C	UL 746B
Relative Temp Index, Mech w/o impact	80	°C	UL 746B
PHYSICAL			
Density	1.46	g/cm ³	ASTM D 792
Mold Shrinkage, flow, 24 hrs (5)	0.41	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs (5)	0.39	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.03	%	ISO 62
ELECTRICAL			
Dielectric Constant (Dk), 1.1 GHz	3.66	-	ASTM ES 7-83
Dissipation Factor (Df), 1.1 GHz	0.0094	-	ASTM ES 7-83
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating (3)	0.5	mm	UL 94
Glow Wire Flammability Index 850°C, passes at	0.8	mm	IEC 60695-2-12
Glow Wire Ignitability Temperature, 0.8 mm	850	°C	IEC 60695-2-13
Glow Wire Ignitability Temperature, 1.0 mm	850	°C	IEC 60695-2-13



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	120	°C
Drying Time	2 - 4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	290 - 320	°C
Nozzle Temperature	280 - 310	°C
Front - Zone 3 Temperature	290 - 320	°C
Middle - Zone 2 Temperature	280 - 310	°C
Rear - Zone 1 Temperature	270 - 300	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	80 - 120	°C