

ARLEN™ E440NK

Polyamide 6T
Mitsui Chemicals, Inc.

Message:

ARLEN™ E440NK by Mitsui Chemicals is a modified polyamide 6T reinforced with 40% glass fiber. Possesses high dimensional stability, high melting point, high rigidity and minimum water absorption. Exhibits good chemical and heat resistance. Is suitable for processing by injection molding. ARLEN™ E440NK is recommended for electrical & electronic parts including connectors, jacks, switches and power supply terminals. Complies with UL 94 V-0 flame rating.

- Features:
- High dimensional stability
 - High melting point
 - High rigidity
 - Minimum water absorption
 - Good chemical and heat resistance
 - Flame retardant
- Applications:

Electrical and electronic parts including: connectors, jacks, switches, and power supply terminals.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 40% filler by weight		
Additive	Flame retardancy		
Features	Good Heat Resistance		
	High Dimensional Stability		
	Rigidity, high		
	Good chemical resistance		
	Low or no water absorption		
	Flame retardancy		
Uses	Electrical/Electronic Applications		
	Switch		
	Connector		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.75	g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Flow	0.20	%	ASTM D955
Transverse flow	0.60	%	ASTM D955
Water Absorption (23°C, 24 hr, 65%r.h)	1.4	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	100		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	190	MPa	ASTM D638
Tensile Elongation (Break)	3.0	%	ASTM D638
Flexural Modulus	17000	MPa	ASTM D790

Flexural Strength	280	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	100	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	300	°C	ASTM D648
Glass Transition Temperature	95.0	°C	
Melting Temperature	320	°C	
Linear thermal expansion coefficient			ASTM E831
Flow	1.8E-5	cm/cm/°C	ASTM E831
Lateral	6.9E-5	cm/cm/°C	ASTM E831
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+15	ohms·cm	ASTM D257
Dielectric Strength	18	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	4.10		ASTM D150
Dissipation Factor (1 MHz)	0.011		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating	V-0		UL 94

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

