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## Technical Data Sheet

### Kopalon Tube PTNA

Film Highlights: 'PTNA' is a heat-shrink tube for fluorescent lamps. It is the ideal PET sleeve for fragment retention fluorescent lamps with long life time

### 1. Basic Properties

Properties	Item	Typical Values		Test Method
		MD	TD	
	Density	1.35 g/cm <sup>3</sup>		-
Mechanical	Tensile Strength	220MPa	180MPa	JIS K-7127
	Elongation	80 %	120 %	
	Young's modulus	1200MPa	800MPa	
	Tear Strength	340 N/mm	320 N/mm	JIS K-7129B
Electrical	Voltage Resistance	AC 14.0 kV/0.1mm		JIS C-2133
Enabled Temperature	Operating Range	-60 ~ 150 C		JIS C-0025
	Continuous-Duty	125C		
Shrinkage	80C	7%	9%	Gear Oven X 5M
	100C	25%	30%	
	120C	26%	34%	
	140C	26%	37%	
	160C	27%	39%	
	180C	27%	43%	

(Note) Above figures are measured values, not guaranteed.

### 2. Film Capability (Nominal Size)

- (1) Thickness: 0.1~0.12mm
- (2) Lay flat: 28~64mm.
- (3) Roll Lengths: 200~400 meters
- (4) Minimum Order Size: 10,000 meters