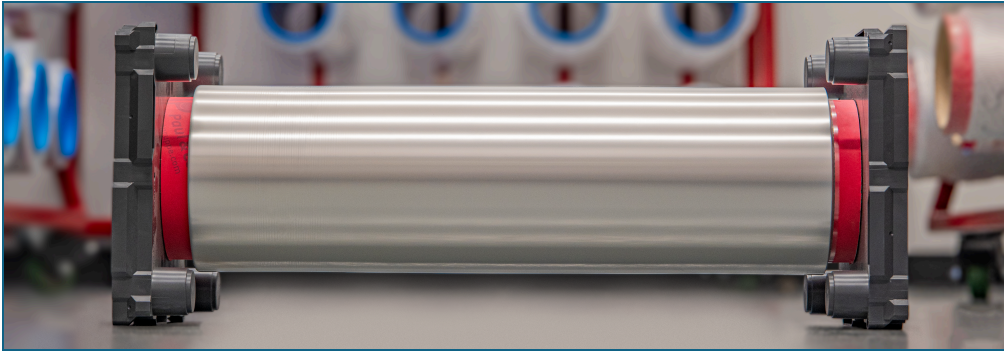



SUPERIOR HIGH-TEMPERATURE PERFORMANCE FOR NEXT-GENERATION CAPACITORS.

NanoPlex LDF is an experimental development-grade capacitor film designed to offer low dissipation factor performance similar to Biaxially Oriented Polypropylene (BOPP), but with an operational temperature rating 25 to 35 °C higher. LDF is designed with facile film handling in mind, resulting in a product that can be metallized and wound in an equivalent manner to BOPP. The higher temperature stability projects to longer operational lifetime devices than BOPP-based capacitors.



AT A GLANCE

-  Up to **5x Longer Capacitor Lifecycles**
-  Rated up to **135 °C**
-  **100% U.S. Engineering**
-  Over **20 Global Patents**



POWER ELECTRONICS



EV INVERTERS



INDUSTRIAL DRIVES



GRID CONDITIONING



HIGH-TEMP MODULES

GLOBAL LEADER IN NANOLAYERED METAMATERIALS.

Peak is a leading provider of nanolayered metamaterials. Our patented NanoPlex metamaterials are engineered and manufactured in the United States. NanoPlex enables researchers and engineers to reimagine how we solve the world's biggest problems, and has been tested up to 4,096 layers, allowing us to create new science and invent new solutions with our researchers, engineers, and partners.

PROPERTY	METHOD	UNITS	VALUE
Dielectric Constant	ASTM D150	1 kHz, 25°C	2.25
Dissipation Factor @ 25°C	ASTM D150	in % at 1 kHz, 25°C	0.03
Dissipation Factor @ 135°C	ASTM D150	in % at 1 kHz, 25°C	0.03
Breakdown Strength @ 25°C (in air)	IEC 60243	V/micron	660
Breakdown Strength @ 25°C (oil submersion)	ASTM D149	V/micron	790
Breakdown Strength @ 135°C (oil submersion)	ASTM D149	V/micron	710
Shrinkage MD/TD	JIS K7133	% at 120°C, 5 min.	0.8/<0.1
Shrinkage MD/TD	JIS K7133	% at 150°C, 30 min	3/0.75
Tensile Strength, MD/TD	ASTM D638	MPa	160/225
Young's Modulus MD/TD	ASTM D638	MPa	2000/320
Elongation at Break MD/TD	ASTM D638	%	100/44
Coefficient of Friction (Static)	JIS K7125	roll face to air face	0.5
Coefficient of Friction (Dynamic)	JIS K7125	roll face to air face	0.4
Surface Roughness (Ra)	JIS B0601	microns	0.12
Density	ASTM D792	g/cc	1.5
Maximum Temperature	–	°C	140
*Thickness	–	micron	3 - 12
Roll Width	–	mm	375, 500
Film Length	–	m	500-3000

*Based on 6 micron film.