

## Product Description

Kaladex® is the trademark for a range of PolyEthylene Naphthalate (PEN) films from DuPont Teijin Films.

Kaladex® 2000 can be used in a wide range of electrical and electronic applications such as capacitors, motors, transformers, flexible printed circuits and fuel cells, as well as many industrial applications where the enhanced properties over standard PET films offer benefits.

Kaladex® 2000 can withstand a broad range of temperatures and has good resistance to moisture and most chemicals. It contains no plasticisers and will not become brittle with age under normal conditions. As per Article 3(3) of the REACH regulation (EC) No 1907/2006 Kaladex® 2000 film is classified as an article. There are no substances intended to be released from the above film under normal, reasonably foreseeable conditions of use, as defined by Article 7(1).

Kaladex® 2000 has not been assessed against Food Contact Legislation.

[illegible]

<b>Optical</b>		<b>16</b>	<b>25</b>	<b>38</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	
Haze	%	5	6	8	13	18	25	30	ASTM D1003-77
<b>Thermal</b>		<b>16</b>	<b>25</b>	<b>38</b>	<b>50</b>	<b>75</b>	<b>100</b>	<b>125</b>	
Melting Point	°C	269	269	269	269	269	269	269	DSC
Glass Transition Temperature	°C	121	121	121	121	121	121	121	DSC
Shrinkage (190°C, 5min) MD	%	1.5	1.5	1.5	1.5	1.5	1.5	1.5	ASTM D1204-78
Shrinkage (190°C, 5min) TD	%	1.5	1.5	1.5	1.5	1.5	1.5	1.5	ASTM D1204-78
Shrinkage (150°C, 30min) MD	%	0.7	0.7	0.7	0.7	0.7	0.7	0.7	ASTM D1204-78
Shrinkage (150°C, 30min) TD	%	0.7	0.7	0.7	0.7	0.7	0.7	0.7	ASTM D1204-78
Co-efficient of Thermal Expansion MD	10(-6)/°C	18	18	18	18	18	18	18	ASTM E831-06
Co-efficient of Thermal Expansion TD	10(-6)/°C	16	16	16	16	16	16	16	ASTM E831-06
Co-efficient of Hydrosopic Expansion MD	10(-6)/%R H	11	11	11	11	11	11	11	DTF Method
Co-efficient of Hydrosopic Expansion TD	10(-6)/%R H	11	11	11	11	11	11	11	DTF Method
Relative Temperature Index (UL File E93687):									
Mechanical	°C	160	160	160	160	160	160	160	UL 746B
Electrical	°C	180	180	180	180	180	180	180	UL 746B

## Disposal Advice

Disposal of Kaladex® 2000 does not present special disposal problems. Where waste occurs in a clean, uncontaminated form it can be recycled. In most circumstances, once Kaladex® 2000 has been laminated, coated, printed or metallised, incineration with Energy Recovery is the most environmentally efficient recovery route. Kaladex® 2000 can also be burned in an incinerator with normal refuse or can be buried as a relatively inert material in a landfill. The disposal method should comply with appropriate local and country regulations.

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Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, see "DuPont Teijin Films Medical Caution Statement", H-50102-3-DTF and H-50103-3-DTF.

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