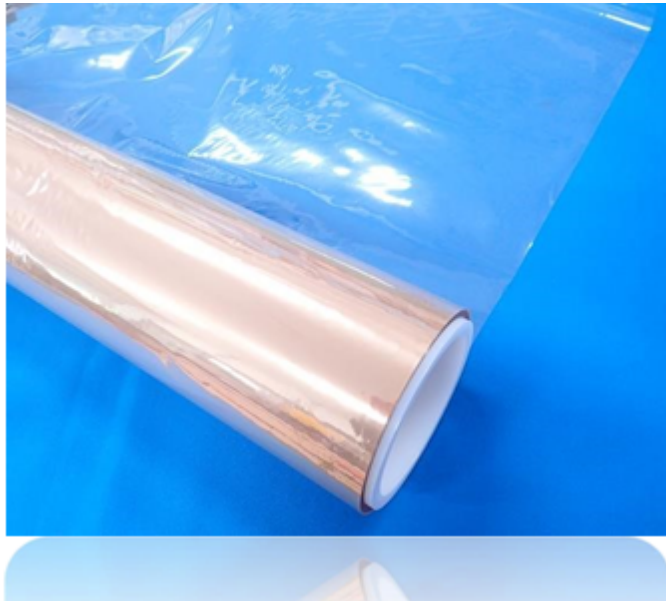


## Dexnyl<sup>®</sup> 185 TPI SF Film\_31

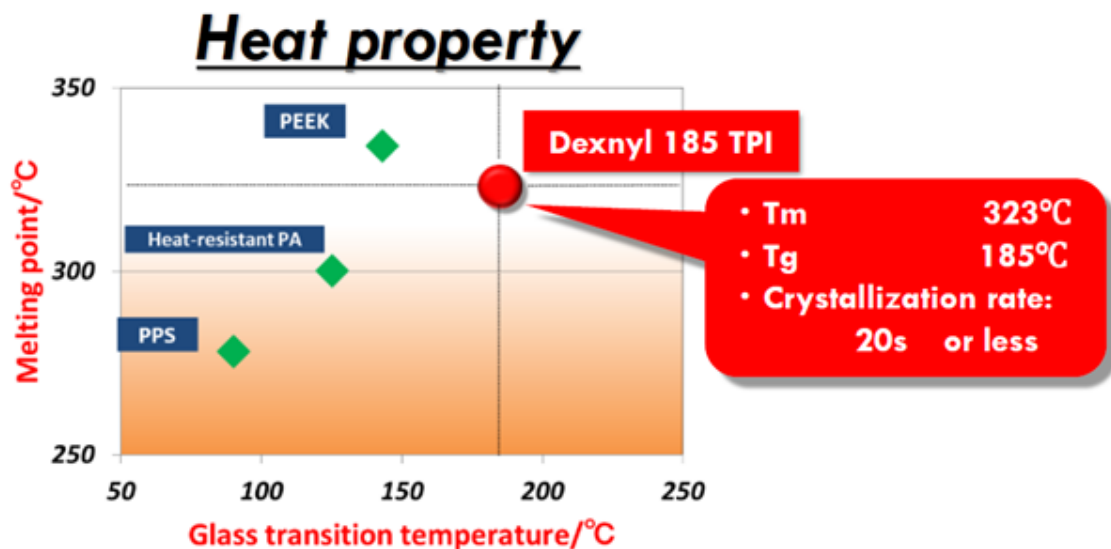
## Technical Datasheet

### High heat-resistance Thermoplastic Polyimide Dexnyl 185 TPI SF Film



#### Characteristic

- ① Good moldability
- ② High heat-resistance
- ③ High strength
- ④ Semi-crystalline, thermoplastic PI



**Low T<sub>m</sub>, High crystallinity grade**

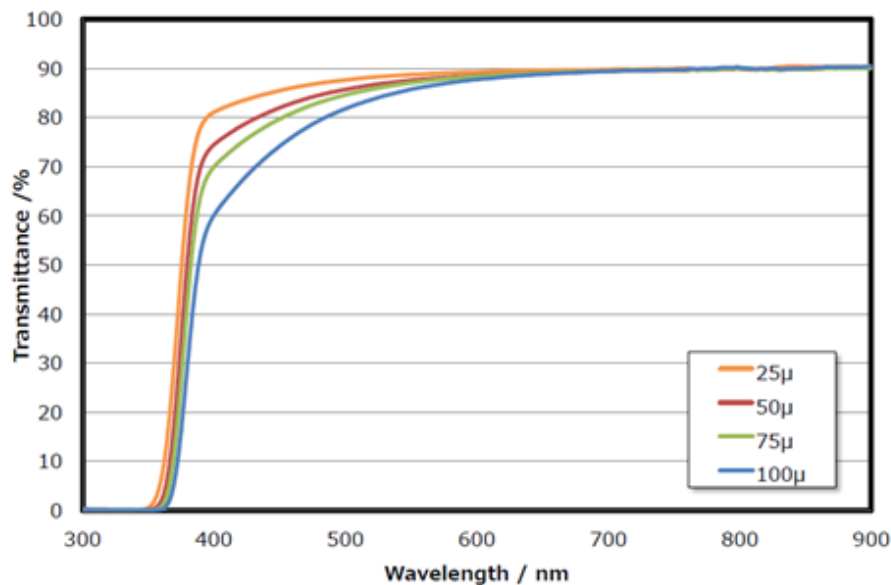
## Optical property of Dexnyl 185TPI films

	Method	Dexnyl 185TPI F100	Dexnyl 185TPI F75	Dexnyl 185TPI F50	Dexnyl 185TPI F25
Thickness (µm)	ASTM D1003-00	100	75	50	25
Transmittance (%)		85.8	87.4	88.4	89.3
Haze (%)		1.2	0.89	0.65	0.47
YI		16.5	11.8	8.0	4.5
L		92.7	93.5	94.0	94.5
a		-0.3	-0.2	-0.1	0
b		8.6	6.2	4.1	2.5

## Mechanical & Thermal property of films

			Method	Dexnyl 185TPI F100	Dexnyl 185TPI F75	Dexnyl 185TPI F50	Dexnyl 185TPI F25
Thickness		µm	ISO 11357	100	75	50	25
Melting Point (Tm)		°C		323			
Glass Transition Temp (Tg)		%		185			
Tensile Strength	MD	MPa	ISO527	60	60	62	52
	TD	MPa		58	56	57	46
Tensile Modulus	MD	GPa		1.2	1.7	1.8	1.5
	TD	GPa		1.2	1.6	1.8	1.5
Tensile Elongation	MD	%		163	94	17	33
	TD	%		53	133	25	20

## Transmittance of Dexnyl 185TPI films



## Other properties of Dexnyl 185TPI films

		Dexnyl 185TPI film	Method
Decomposition temperature	1%/air, °C	424	ASTM E2550-17
	5%/air, °C	457	
permittivity	60Hz	2.6	IEC60250
	1GHz	2.6	
dielectric tangent	60Hz	0.00064	
	1GHz	0.004	
Breakdown Voltage	kV	45.5	ASTM D149
volume resistivity	$\Omega \cdot m$	$5.3 \times 10^{15}$	IEC60093
Surface resistance	$\Omega$	$1.6 \times 10^{16}$	
Saturated Water absorption	%	0.9	ASTM D570

**UL94VTM test: VTM-2 Level; good resistance to reflow heat**

Distributed By -



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The specified values are established from average values of several tests and they correspond to our today's knowledge. They are only to be used as information about our products and as help for the material selection. With these values, we do not ensure specific properties, or the suitability for certain application, therefore we do not assume any legal responsibility for an improper usage. The used test pieces have been machined from extruded semi-finished material. Since the plastics properties depend on the manufacturing process (extrusion, injection moulding), on the dimensions of the semi-finished material and on the degree of crystallinity, the actual properties of a specific product may slightly deviate from the tested ones. For information about divergent properties do not hesitate to contact us. On request we advise you regarding the most appropriate component design and the definition of material specifications more suitable to your application data. Notwithstanding, the customer bears all the responsibility for the thorough examination of suitability, efficiency, efficacy and safety of the chosen products in pharmaceutical applications, medical devices or other end uses.

Status: October 2020