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LCP Film

Special Solution Casting Technology
Thermotropic Liquid Crystalline Polyester Film



슈퍼 엔지니어링 플라스틱「LCP」의 특징

【KGK LCP의 특성】

방향족 폴리에스테르 계 수지로서 방향족으로써의 강직성·내열성을 지니며 폴리에스테르로써의 결정성의 높기 의하여 강도를 지닌 용융상태(아몰퍼스)로 규칙이 올바르게 분자가 나열된 성질을 지닌다。

LCP의 장점은 슈퍼 엔지니어링의 특징인 내열성·고강도(결정성)。
LCP 독자적인 장점인 가스배리어성과 고주파에서 저유전·고절연특성。
LCP는 KGK의 독자적인 장점인 용융상태(아몰퍼스)에서 배향하는 성질(중심이 편심 됨에 의하여 강도 등의 특성을 언밸런스화)을 소거하기 위하여 용융성형(Melt molding)이 아닌 용융 캐스팅 법(Solution casting method)(용매를 이용한 성형)에 의한 부드러움과 높은 강도특성

KGK Special solution casting method(KGK특허 용융 캐스팅 법)으로 만들어진 Liquid crystal polymer film (액정 폴리머 필름)、불리우며、

특수용액 캐스팅 용융 액정성 방향족 폴리에스테르 필름
(Special Solution Casting Thermotropic Liquid Crystalline Polyester Film)

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Property

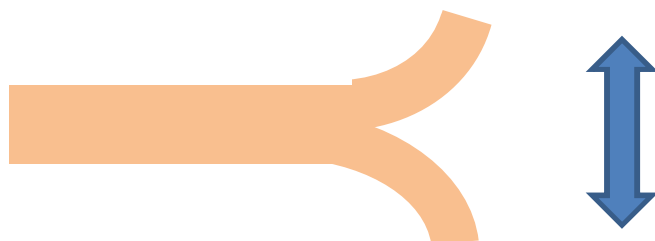
품번	단위	조건	수치
전기 특성			
비 유전율	-	1GHz	3.09
체적 저항율	$\Omega \cdot \text{cm}$	23°C	39×10^{17}
흡수 특성			
흡수율	ppm/°C	85°C/85%RH@168hr	< 0.1
기계 특성			
인장강도	Mpa	25°C	60 ^{*1}
인장 탄성율	Mpa	25°C	3000 ^{*1}
신율	%	25°C	7 ^{*1}
내열성			
납땜 내열성	-	270°C/30 sec	PASS
		300°C/3 sec	PASS

*1 Aneling : 300°C/60min

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Tear Strength

LCP Film	KGK	Competitor
Method	Cast	Extrusion (Melt process)
찢어지는 전파 저항(mN)	54	38



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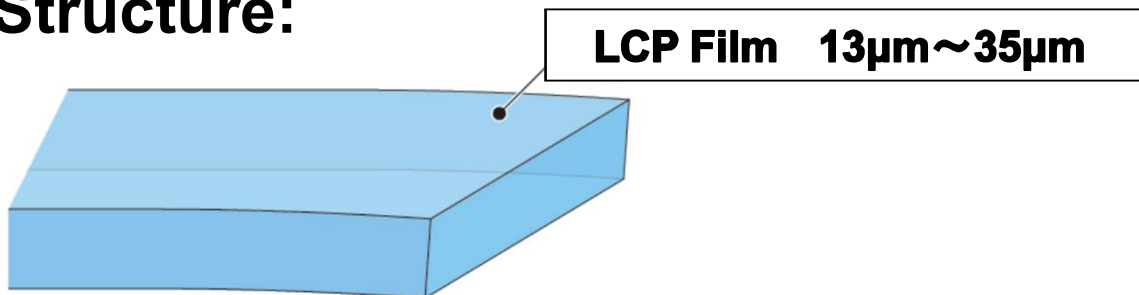
Comparison

Item		Unit	LCP	PET	PI
융점 (Tg)			316	149	>300
납땜 내열성		270°C × 30s	○	×	○
유전특성	유전율	1GHz	3	3.2	3.3
	유전정접	1GHz	0.004	0.005	0.009
흡수율 : 85 °C × 85% RH × 168 h		(%)	<0.1	0.3	1.6
수증기 투과율 Ambient Temp x 24h		(%)	1.3	2.2	2

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사양

Structure:



Sizes:

Products	Thickness(μm)	Color	Standard Roll Size
SAR 13	13	Brown	300mm x 20M
SAR 20	20		
SAR 25	25		
SAR 30	30		
SAR 35	35		

***Please inquire for more different thickness and width**

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User is responsible for determining whether the KGK product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a KGK product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a KGK product. Given the variety of factors that can affect the use and performance of a KGK product, some of which are uniquely within the user's knowledge and control. It is essential that the user evaluate the KGK product to determine whether it is fit for a particular purpose and suitable for the user's method of application. KGK make no warranties on above data.



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