

CHEMICAL SOLUTIONS

侑真化学

YUJIN CHEMICAL

유진케미칼

Product introduction

产品介绍书

제품소개서



The best Quality, Technology and Service

YUJIN CHEMICAL

Yujin Chemical co.,ltd. has developed epoxy adhesive and UV hardening adhesive that are widely used in the Display and Camera industries with motto that customer satisfaction is a top priority since its foundation in 2013.

To respond quickly to rapidly changing markets based on excellent development staff, Epoxy for camera modules and UV adhesives are developed and provided to large and small businesses with high quality and reasonable price competitiveness.

In addition, it has recently stepped into Quantum Dot, which is recognized as a next-generation Display material and a material for light-emitting devices, and established its position in the QD market.

Now, **Yujin Chemical co.,ltd.** is committed to building a more reliable infrastructure and transforming itself into a company that delivers the best products of all time with **the best quality, technology and service.**



最高的品质和
技术及 售后服务

YUJIN CHEMICAL

(株)侑真化学 2013年创业以来,以“顾客满意”的经营理念 开发生产 广泛用于摄像头产业的环氧树脂粘合剂及UV固化剂。

以优秀的开发人员为基础,迅速适应市场变化,开发相机组件用环氧,UV粘合剂等,以优秀的品质和合理的价格竞争力,供货至大企业及给中小企业。

另外,最近也涉足于新一代Display材料和发光元件用材料而备受瞩目的 QuantumDot, 在QD市场也正在构筑立足之地。

现 **(株)侑真化学** 正在构筑更加稳定的基础设施,最佳品质和技术并且,通过服务,让公司成为提最优质产品的公司而尽最大努力。

최고의 품질과 기술 그리고 서비스

YUJIN CHEMICAL

(주)유진케미칼은 2013년 창업 이래 고객만족을 최우선 가치로 여긴다는 모토를 가지고 Display 및 Camera 산업에 널리 사용되고 있는 에폭시 접착제 및 UV 경화형 접착제를 개발 생산하고 있습니다.

우수한 개발 인력을 바탕으로 재빠르게 변화하는 시장에서 신속히 대응하기 위하여, 카메라 모듈용 에폭시, UV 접착제 등을 개발하여 우수한 품질과 합리적인 가격 경쟁력으로 현재 대기업 및 중소기업에 제공하고 있습니다.

또한, 최근 차세대 Display 소재 및 발광소자용 소재로 각광받고 있는 Quantum Dot 시장에도 발을 내딛어 QD 시장에서도 입지를 구축해 나가고 있습니다.

이제 (주)유진케미칼은 보다 안정적인 인프라를 구축하여 최고의 품질과 기술 그리고 서비스로 항상 최고의 제품만을 공급하는 회사로 거듭날 수 있도록 최선을 다하겠습니다

LOCATION ▶



▶ OVERSEAS



DONG GUAN

ROOM 2609, WANDA PLAZA,
DONGCHENG AREA, DONGGUAN CITY,
GUANGDONG PROVINCE, CHINA



HA NOI

22ND FLOOR, ICON4 TOWER, 243A DE KA
THANH STREET, LANG THUONG WARD,
DONG DA DISTRICT, HA NOI CITY, VIETNAM

▶ KOREA



BUSAN

| HEADQUARTERS

부산시 해운대구 센텀서로 30 KNN타워 2407호



SEOUL

서울특별시 강서구 마곡중앙5로 1길 20, 보타닉
비즈타워 722호



GUMI

| R&D CENTER

경북 구미시 산동면 첨단기업5로 109-18

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- ▶ UV Curing Adhesive
(紫外线固化 胶粘剂)
- ▶ UV Curing + Moisture Adhesive
(紫外线固化 + 防潮胶)
- ▶ Thermal Curing Adhesive
(热固化 胶粘剂)
- ▶ Conductive Paste
(导电膏)
- ▶ Heat radiating Adhesive
(散热 胶粘剂)

DISPLAY / 显示屏

- ▶ Insulating Damp proof Resin
(绝缘防湿 树脂)
- ▶ Conductive Paste
(传导性 粘合剂)
- ▶ Peel-able Protective Paste
(可剥离 保护剂)
- ▶ Glass Protective Ink
(玻璃 保护液)

Quantum Dot / 量子点

- ▶ Quantum Dot Resin
(量子点 树脂)



CAMERA MODULE & MOBILE

摄像头模块和移动设备

▶ YUJIN CHEMICAL



YUJIN CHEMICAL MAGIC LANCER

UV + THERMAL

Dual cured adhesive, used to bond between the lens barrel and holder during camera module assembly.

Dual curing method that is applied after UV curing and fully cured after thermal curing. Advantages of curing at low temperatures and short periods of time over traditional products are excellent adhesion.

Scaling with UV is rapid, and dimensional changes are not occurring during product handling.

The low viscosity model, YU-UETL1813P, is optimized for pneumatic dispensing with automated facilities, and can also be used for jetting equipment.

The high-dot model YU-UETL1826P features the Aspect Ratio of 0.6 or higher after dispensing and is optimized for the Dual AA process.

Dual 固化型胶粘剂, 用于摄像头装配过程, Lens镜筒与 支架粘合作用。UV 固化后 虚粘接, 热固化后完全固化的 Dual固化方式。比起现有产品在低温状态下短时间固化的优点, 且有着优秀的粘合力。

利用UV的 虚粘接在很短时间内完成, 产品移动过程中不会发生尺寸变化低粘度机种 YU-UETL1813P是 适用于 自动化点胶设备上, 也可应用在jetting设备上。

高粘度机种 YU-UETL1826P是 画胶后 Aspect Ratio值 0.6 以上, 适用于 Dual AA 工程。

YUJIN CHEMICAL GLOBE LOCK

UV RESIN

UV-cured adhesive, used to bond IR Filter to camera module. It hardens quickly using UV and has excellent adhesion.

YU-UL1785P products are non-filter types that are free from foreign substance, and are more competitive in price than other products.

光固化型粘合剂,用于安装相机模块的IR Filter。利用UV在 短时间内固化,优秀的粘合强度。

YU-UL1785P产品是Non filter type 可摆脱异物性不良现象,比其他产品价格竞争力更强。

YUJIN CHEMICAL IRIS RAINBOW

CONDUCTIVE PASTE

Conductive thermal adhesive, which has excellent electrical conductivity, high hardness and adhesion at low curing temperature. The YU-AT1803 product is a type of solvent, with low volumetric variation during hardening and easy to implement product geometry. Hardened in a short period of time at a low temperature of 80°C. After curing, the performance is excellent. 热固化型导电胶,低固化温度,优秀的导电性, 具有高硬度,粘合力的材料。

YU-AT1803产品为无溶剂类型,在硬化过程中体积变化较少且易于体现产品形状。在80°C左右的低温下,在短时间内固化,固化后显示优秀的性能。

YUJIN CHEMICAL VULCAN

THERMAL RESIN

Thermal epoxy adhesive, which has excellent adhesion on a variety of substrates, is mainly used in camera module applications.

The YU-ET1802 product has been optimized for relieving the dispensing process, particularly with ease of managing discharge and discharge patterns.

YU-ET1902B Product is a thermosetting adhesive for black form.

Both products harden at a lower temperature and at a shorter time than conventional products, indicating excellent adhesion after hardening.

热固化型环氧胶粘合剂,在多种基板上具有优秀的粘合力,主要应用于手机摄像头组件领域。

YU-ET1802 产品通过预装优化,适合点胶工艺,特别具有点胶量和点胶形态管理方便的优点。

YU-ET1902B产品是黑色形态的热固化型粘合剂。

两款产品均比现有产品在较低温度下短时间内固化, 固化后呈现优秀的粘接强度。

유진케미칼 MAGIC LANCER

UV + THERMAL

Dual 경화형 접착제로, 카메라 모듈 조립 과정에서 렌즈 배럴과 홀더간의 접착을 위해 사용됩니다.

UV 경화 후 가접착되고, 열경화 후에 완전히 경화되는 Dual 경화 방식입니다. 기존 제품에 비해 낮은 온도에서 짧은 시간에 경화되는 것이 장점이며, 우수한 접착 강도를 가지고 있습니다.

UV를 이용한 가경화는 빠른 시간에 진행되며, 제품 핸들링 과정에서 치수 변형이 발생하지 않습니다.

저점도 모델인 YU-UETL1813P는 자동화 설비를 사용한 공압 디스펜싱 방식에 최적화되어 있으며, 세팅 장비에도 적용 가능합니다.

고점도 모델인 YU-UETL1826P은 디스펜싱 후 Aspect Ratio가 0.6 이상으로, Dual AA 공정에 최적화되어 있습니다.

유진케미칼 GLOBE LOCK

UV RESIN

광경화형 접착제로서, 카메라 모듈의 IR Filter 접착을 위해 사용됩니다. UV를 이용하여 빠른 시간에 경화되며, 우수한 접착 강도를 가지고 있습니다. YU-UL1785P 제품은 Non filter type으로 이물질 불량에서 자유로우며, 타사 제품보다 가격 경쟁력이 우수합니다.

유진케미칼 IRIS RAINBOW

CONDUCTIVE PASTE

열경화형 도전성 접착제로, 낮은 경화온도에 우수한 전기전도성과 높은 경도, 접착력을 가지는 재료입니다.

YU-AT1803 제품은 무용제 타입으로, 경화과정에서 체적 변화가 적고, 제품 형상 구현이 용이합니다.

80°C 정도의 낮은 온도에서 짧은 시간에 경화되며, 경화 후에는 우수한 성능을 나타냅니다.

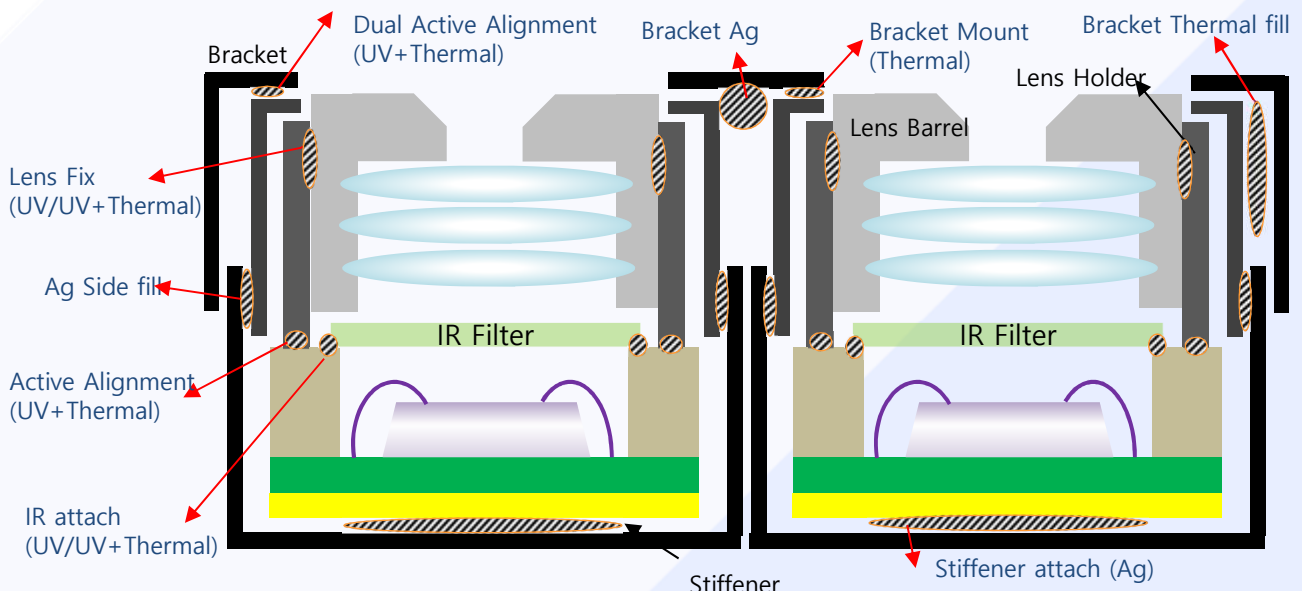
유진케미칼 VULCAN

THERMAL RESIN

열경화형 에폭시 접착제로서, 다양한 기판에 우수한 접착력을 가지고 있어, 주로 카메라 모듈 분야에 사용됩니다.

YU-ET1802 제품은 레올로지 최적화를 통해, 디스펜싱 공정에 적합하며, 특히 토출량과 토출 형태 관리가 편한 장점을 가지고 있습니다.

YU-ET1902B 제품은 흑색을 띠는 열경화형 접착제입니다. 두 제품 모두 기존 제품에 비해 낮은 온도에서 짧은 시간에 경화되며, 경화 후에는 우수한 접착 강도를 나타냅니다.



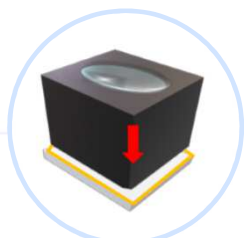
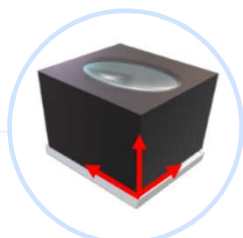
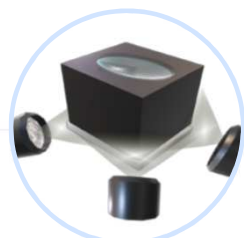
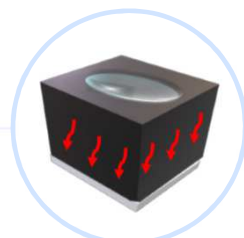
CAMERA MODULE ADHESIVE

Camera 用

摄像头模块和移动设备

Camera Module 공정에서 사용되는 Dual 경화형 레진 (UV + Thermal)

Dual cured resin used in the Camera Module / 摄像头模组工艺中使用的双固化树脂(紫外线 + 热固化)

Dispense
画胶Position
落位Align
对齐Light Cure
紫外线固化Heat Cure
热固化

POINT

- Excellent dispensability
优异的画胶性能
- Oven Cure Condition (80°C, 40min)
烤箱烘烤条件 (80度, 40分钟)
- Halogen Free / RoHS-compliant
无卤素 / 符合 RoHS
- Low linear cure shrinkage (<1%)
低线性固化收缩率(<1%)
- No flow out
无溢出



Specification / 规格	YU-UETL1813P	YU-UETL1826P	Remark / 备注
Color / 颜色	Amber	Clear	
Viscosity(cPs) / 粘度	1,000~1,500	60,000	20rpm, 25°C, Spindle #14, BROOKFIELD RV DV2
Thixotropic Index / 触变指数	2.0	5.0	2/20 rpm
Modulus(Gpa) / 模量(Gpa)	1.8	0.79	
Tg °C	74	111	
CTE below Tg (ppm/°C)	74	126	
CTE above Tg (ppm/°C)	181	169	
Linear shrinkage During curing (%) / 线性收缩固化期间	< 0.6	< 1.8	
Water Absorption(%) / 吸水率(%)	> 1	> 3	After UV
	> 10	> 8	After UV + Thermal
Work Life @ RT (hours) / 工作寿命	40	40	
Shelf Life @ -40 ~ -20°C (months)/保存寿命	6	6	

Curing Condition : 365nm, 55~60 mW/cm² + 40min @ 80°C

CAMERA MODULE ADHESIVE

Camera 用

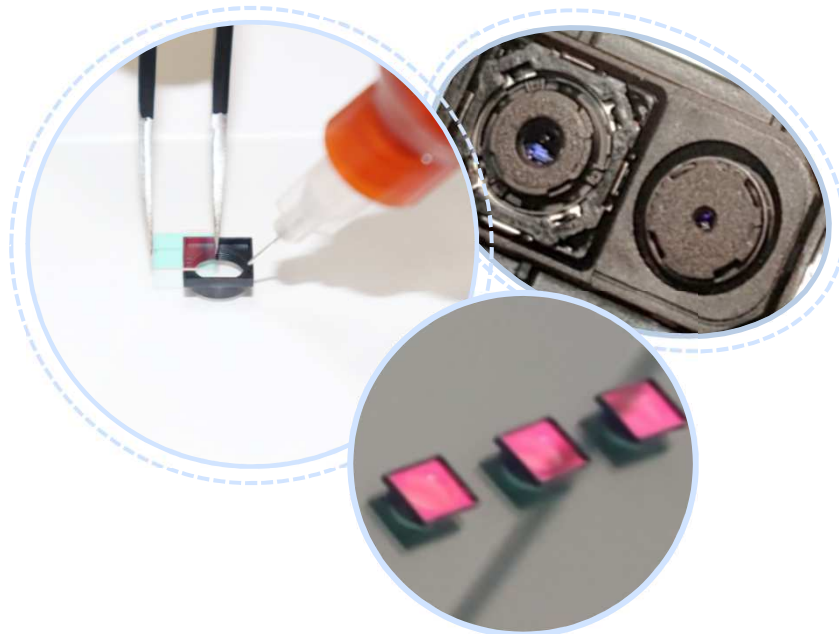
摄像头模块和移动设备

카메라 모듈용 자외선(UV) 경화형 접착제

▪ Ultraviolet (UV) hardened adhesive for camera modules / 相机组件用紫外线(UV)固化型 胶粘剂

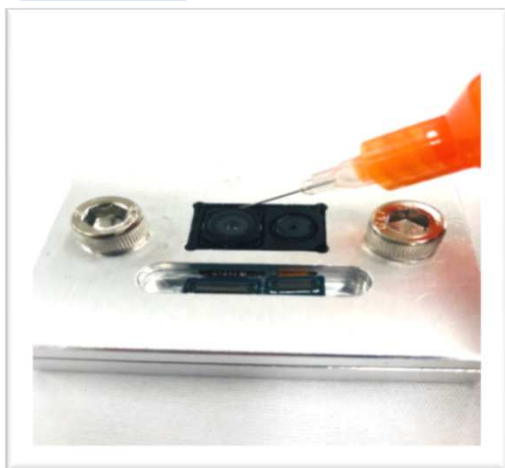
POINT

- ▶ Glass Filter Adhesion above 2.5kgf
玻璃过滤器粘附力2.5Kgf以上
- ▶ Fast Cure response
快速固化反应
- ▶ Excellent dimensional stability
良好的尺寸稳定性
- ▶ LED Curing
发光二极管固化



Specification / 规格	YU-UL1785P	YU-UL1879P	Remark / 备注
Color / 颜色	Clear	Cloudy	
Viscosity(cPs) / 粘度	15,000 ± 2,000	6,000 ± 2,000	Temp. 22°C, Rotation : 2rpm
Adhesion(kgf) / 粘合力	Over 2.5kgf	Over 7kgf	push-pull gauge
Cure condition / 固化条件	LED 385nm	LED 365nm	
Storage(°C) / 贮藏温度	5 ~ 30	5 ~ 30	Room temp
Warranty(months) / 保质期	6	6	In unopened original container
Application / 适用范围	IR attach bonding	Flange bonding	

- ▶ UV irradiation Conditions : 20,000ml/cm² (385nm, Wavelength)
- ▶ UV irradiation Conditions : 20,000ml/cm² (365nm, Wavelength)



MOBILE ADHESIVE

Mobile 用

摄像头模块和移动设备

모바일용 자외선 습기 (UV+Moisture) 경화형 레진

- UV + Moisture Hardening Resin for Mobile / 手机用紫外线 湿气 固化树脂



POINT

- One - component
一体化组成
- Solvent / Halogen Free
溶剂 / 无卤素
- Fast cure
快速固化
- Cures in shadowed areas
阴影区域矫正粘接

Specification / 规格	YU-UH1801	Remark / 备注
Color / 颜色	Cloudy	
Density(g/cm ³) / 密度	1.14	
Viscosity(cPs) / 粘度	30,000 ± 2,000	20rpm, 25°C, Spindle #14 BROOKFIELD RV DV2
Thixotropic Index / 触变指数	2.0	2/20rpm
Curing condition / 固化条件	UV + Moisture	
Storage(°C) / 贮藏条件	-40 ~ -20	Refrigeration warehouse
Binder / 固化剂	Urethane	



CAMERA MODULE ADHESIVE

Camera 用

摄像头模块和移动设备

카메라 모듈용 열(Thermal) 경화형 레진

Thermal Hardening Adhesives for Camera Modules / 摄像头组件用热(Thermal)固化树脂

POINT

- ▶ **Excellent Dispensability**
优异的画胶性能
- ▶ **Oven Cure Condition(75°C, 30min)**
烤箱固化状态 (75度, 30分钟)
- ▶ **Powerful Bonding Strength**
强大的粘合强度



Specification / 规格	YU-ET1802	YU-ET1902B	Remark / 备注
Color / 颜色	Cloudy	Black	
Density(g/cm ³) / 密度	1.10	1.15	
Viscosity(cPs) / 粘度	25,000	15,000	20rpm, 25°C, Spindle #14 BROOKFIELD RV DV2
Thixotropic Index / 触变指数	5.6	5.0	2/20rpm
Curing Time(min) / 固化时间	30	30	75°C ~ 80°C
Tg(°C)	74	55	
Chip Bonding Strength(kgf) / 芯片粘合强度	> 5	> 4	Magnetic chip / SUS sheet
Storage(°C) / 贮存温度	-40 ~ -20	-40 ~ -20	Refrigeration warehouse
Warranty(months) / 保质期	6	6	

CAMERA MODULE ADHESIVE

Camera 用

摄像头模块和移动设备

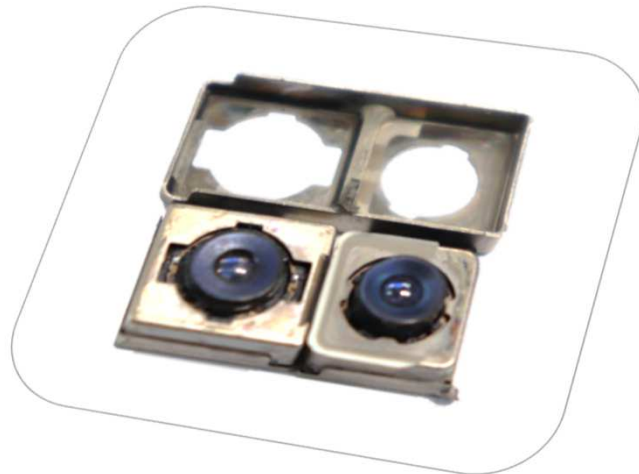
카메라 모듈용 전도성 Ag 접착제

Conductive Ag Paste for Camera Modules / 摄像头组件用导电性Ag 粘合剂



POINT

- ▶ **Excellent Dispensability**
 优异的画胶性能
- ▶ **High Heat Conductivity**
 高导热性
- ▶ **Curing at low-temperature (80°C)**
 低热温固化 (80°C)
- ▶ **Halogen Free / RoHS-compliant**
 无卤素 / 符合 RoHS



Specification / 规格	YU-AR1827	YU-AT1802	YU-AT1803	Remark / 备注
Color / 颜色	Silver	Silver	Silver	
Density(g/cm³) / 密度		3.3	3.2	
Viscosity(cPs) / 粘度	10,000	55,000	45,000	20rpm, 25°C, Spindle #14 BROOKFIELD RV DV2
Thixotropic Index / 触变指数	2.0	4.5	5.0	2/20rpm
Curing Time(min) / 固化时间	Room temp(4h)	60	60	75°C ~ 80°C
Resistivity (μΩ·cm) / 阻抗	-	< 500	< 400	
Storage(°C) / 贮存温度	1 ~ 5	-40 ~ -20	-40 ~ -20	Refrigeration warehouse
Warranty(months) / 保质期	3	6	6	

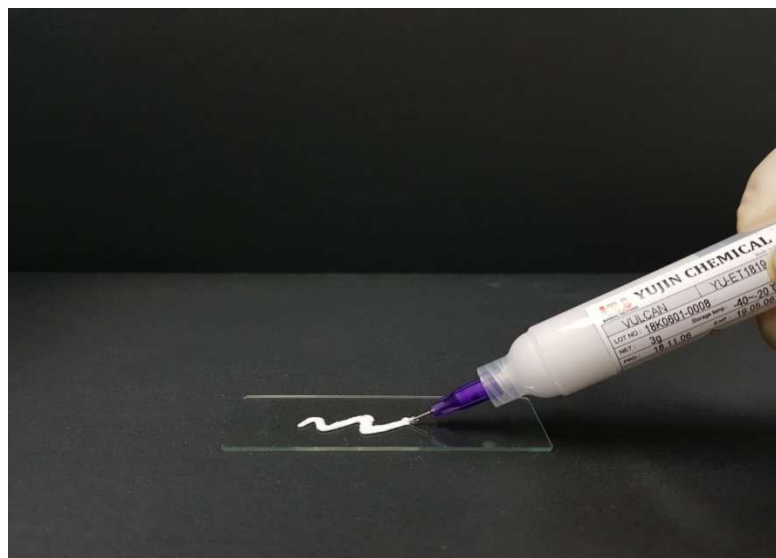
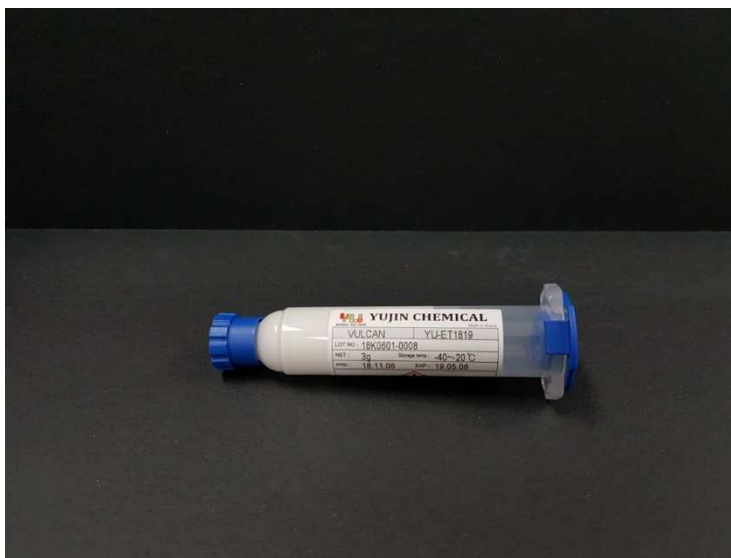
MOBILE ADHESIVE

Mobile 用

摄像头模块和移动设备

모바일용 방열 (heat radiating) 레진

▪ Heat radiating resin for Mobile / 手机用散热树脂



POINT

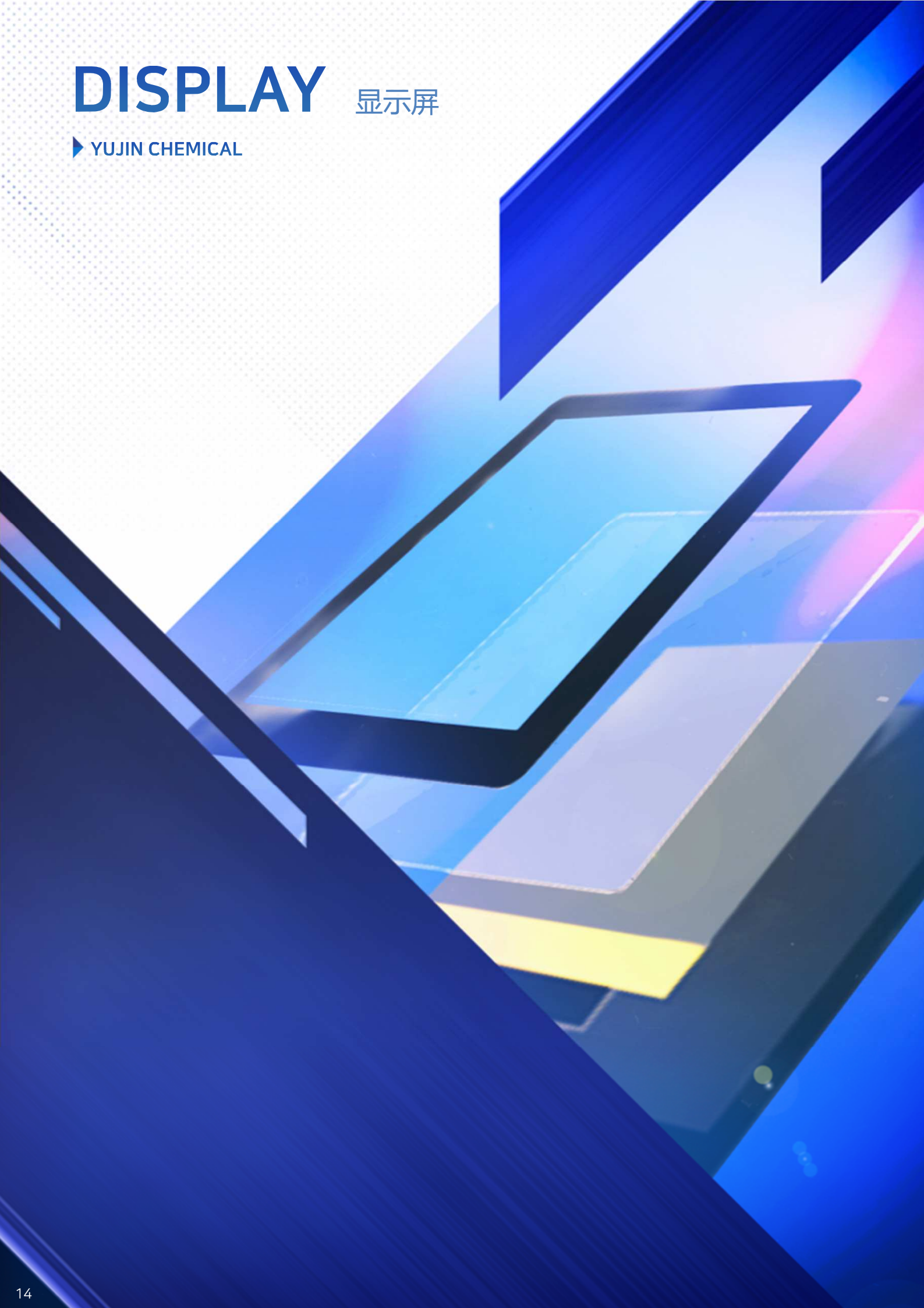
- ▶ **One - component**
 一体化组成
- ▶ **Solvent Free /Low Halogen**
 无溶剂 / 低卤素
- ▶ **Curing at low-temperature (80°C)**
 低热温固化 (80°C)



Specification / 规格	YU-ET1819	Remark / 备注
Color / 颜色	White	
Density(g/cm ³) / 密度	4.5	
Viscosity(cPs) / 粘度	50,000	20rpm, 25°C, Spindle #14 BROOKFIELD RV DV2
Thixotropic Index / 触变指数	2.0	2/20rpm
Tg(°C)	50	
Curing condition / 固化条件	Thermal	
Curing Time(min) / 固化时间	30	80°C
Work Life @ RT (day) / 工作寿命	1	
Storage(°C) / 贮存温度	-40 ~ -20	Refrigeration warehouse

DISPLAY 显示屏

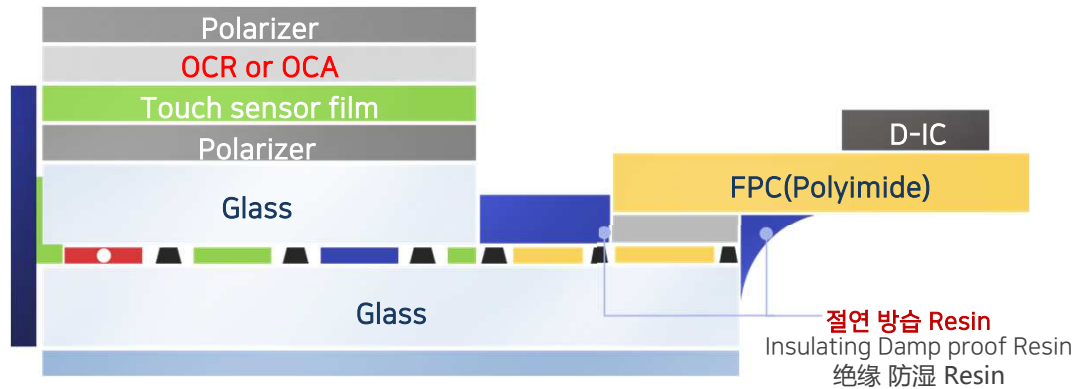
▶ YUJIN CHEMICAL



OLED

Organic Light Emitting Diodes

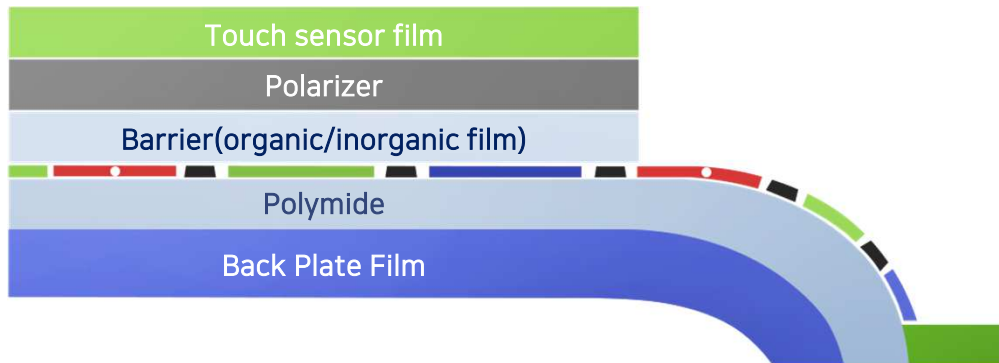
Rigid OLED Panel



Flexible OLED Panel

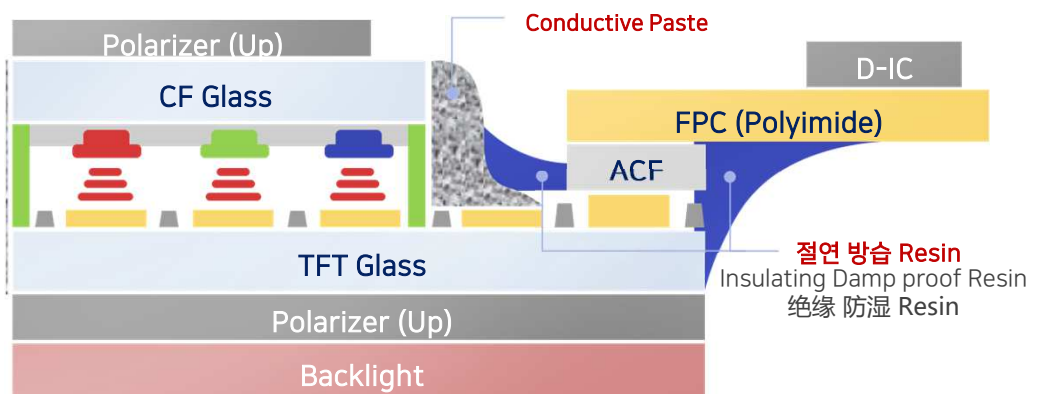


- 2015년 3월 갤럭시 S6 엣지+
March 2015 Galaxy S6 Edge+
- 명실상부한 플렉시블 OLED 대량양산 시대 개막
Opening of the era of mass production of flexible OLEDs in name and substance
名副其实的曲面OLED量产时代拉开序幕



LCD

Liquid Crystal Display



INSULATING DAMP PROOF RESIN

LCD, OLED 用

绝缘防湿 树脂

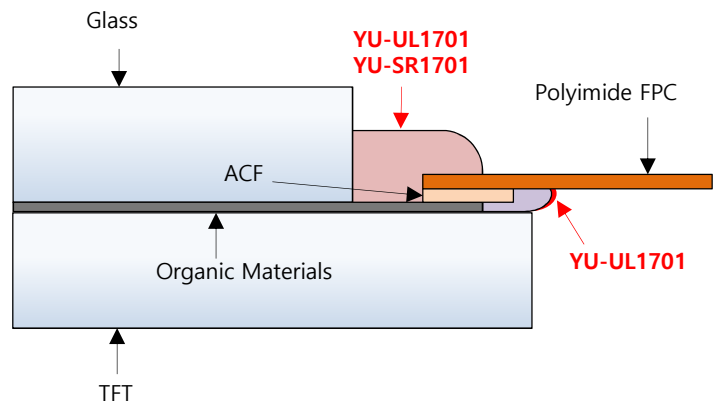
LCD, OLED, TSP 패널의 ITO, 전극 부위 등을 외부환경으로부터 습기, 오염, 충격에 보호

- Protection of ITO and electrodes of LCD, OLED, TSP panel from moisture, contamination and impact of external environment
- 保护LCD, OLED, TSP面板的ITO,电极部位等不受外部环境侵袭,污染,冲击



POINT

- Low moisture absorption**
低吸湿性
- High Photo Speed (LED Lamp Curing)**
高光速 (LED灯固化)
- Excellent heat stability**
优异的热稳定性
- Excellent Reliability**
卓越的可靠性



Specification / 规格	Room Temp YU-SR1701	UV Cure YU-UL1701	UV Cure YU-UL1711
Binder / 粘剂	Urethane	Urethane	Urethane
Appearance / 外观	Blue	Clear	Yellow
Viscosity(cPs) / 粘度	800 ± 10%	1,545 ± 300	1,770 ± 300
Curing condition / 固化条件	R.T <9min	LED 365/385nm	LED 365nm
UV Intensity(mJ) / 紫外线强度	-	200~500	1,500
Young's Modulus(Mpa) / 杨氏模量	-	-	300
Elongation at tear(%) / 撕裂延伸率	1,300	387	260
Adhesion (Glass) (gf/mm) / 粘合力(玻璃)	30	161	86
Solid Content(%) / 固体含量	30	100	100
Water Absorption(%) / 吸水率	0.3	0.31	0.3

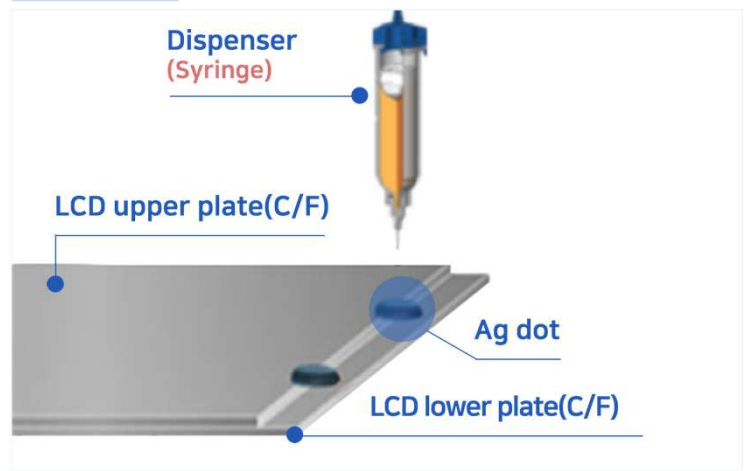
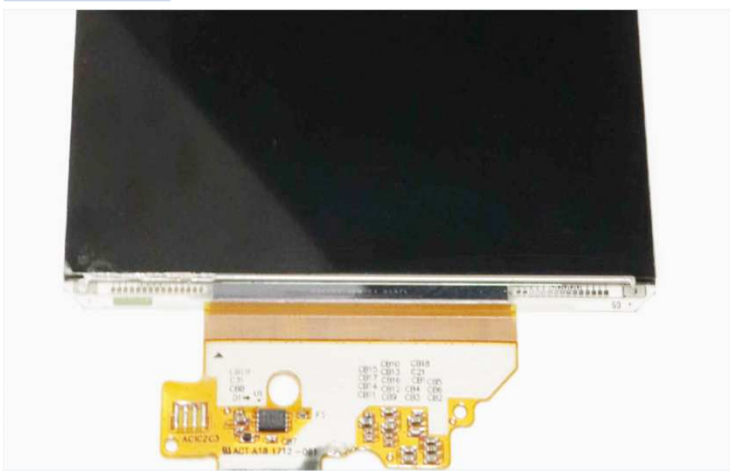
CONDUCTIVE PASTE

TV/MNT/Mobile

传导性 粘合剂

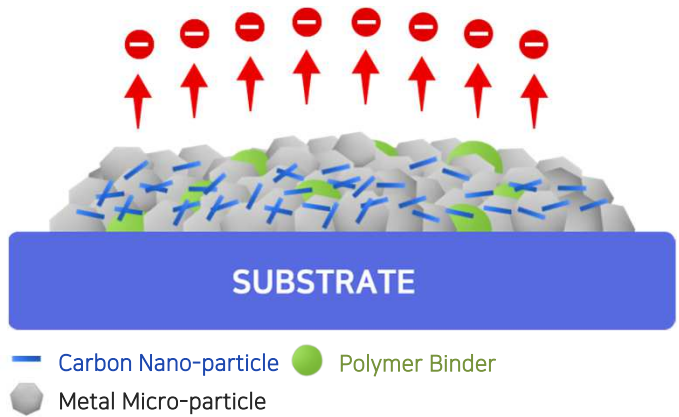
IPS Panel의 C/F or Top POL 표면에 발생하는 정전기를 ITO층 → TFT 층을 거쳐 Ground 처리를 위한 전도성 Silver Paste

- Silver Conductive Paste for Ground treatment through ITO layer and TFT layer of static electricity generated on the C/F or Top POL surface of the IPS Panel
- IPS 面板의 C/F or Top POL 表面产生的静电经过 ITO 层 → TFT 层, 为处理 Ground 而设计的导电性 Silver Paste



POINT

- ▶ Excellent electric resistance
优良的阻抗
- ▶ Excellent water resistance and adhesion
优异的耐水性和粘合力
- ▶ Black paste : Increase in productivity (low specific gravity than Ag paste)
黑浆糊: 提高生产率 (比银膏比重低)
- ▶ Increase ESD effectiveness (density and illumination difference)
提高静电放电效率 (密度和照明差异)



Specification / 规格	Sliver paste YU-AR1702	Black paste YU-BR1703
Solids Contents(%) / 固体含量	43 ± 1	48 ± 1
Viscosity(cPs) / 粘度	5,250 ± 500	6,000 ± 500
Jetting / 喷射	OK	OK
ESD(kV) / 静电放电	10	12 ↑
Thixotropic Index / 触变指数	5.0	1.6
Electrical Resistance(Ω) / 阻抗	< 1.0	< 1.0
Curing Condition / 固话条件	Surface drying 5min Complete drying 6 hours	Surface drying 5min Complete drying 6hours
Storage(°C) / 贮藏条件	1 ~ 5	1 ~ 5

PEEL-ABLE 보호막 PASTE

TOUCH/CG 用

可剥离 保护剂

ITO Glass, Cover Glass 등 Panel 제조상 발생하는 Scratch, 파손 불량률 감소시킴

- Reduces scrap and Scratch caused by the manufacture of panels such as ITO Glass and Cover Glass
- ITO 玻璃, 盖板玻璃等面板制造商发生刮伤,减少破损不良现象

POINT

- Abrasion Resistance**
耐磨性
- Fast Cure Response**
快速固化反应
- Easily Peel**
易剥离
- No residue after removal**
去除后无残留

① Panel 배면에 도포

- Spread to the back of the panel / 面板背面涂布

② Laser Cutting 및 Scribe 진행

- Laser Cutting and Scribe / 激光切割及 裁剪

③ Remover Tape를 이용하여 완전 제거

- Remove completely using the Remove Tape / 利用去除胶带完全清除



Test List / 测试列表	Peel-able Protective Paste	Remark / 备注
Color / 颜色	White, Blue, Green	
Thermal Curing / 热固话	OK	120°C / 10-20min at Convention oven
Tacky / 附着	Nothing	Finger
Adhesion Test (gf/inch) / 粘着试验	10 ~ 15	ASTM D3330
Thickness(μm) / 厚度	10 ~ 15	DEKTAK XT (Contact Coating Thickness Gauge)
Roughness(μm) / 粗糙度	1101.60	
Viscosity(cPs) / 粘度	20,000 ~ 50,000	Brookfield DV2T
Coating properties after neglect / 放置后涂层性能	OK	1hr Leave thickness, air bubbles, and plate separation check
Storage(°C) / 贮藏条件	5 ↓	low temperature warehouse
Warranty(months) / 保质期	6	In unopened original container (5 °C)

GLASS PROTECTIVE INK

All Kind of Glass

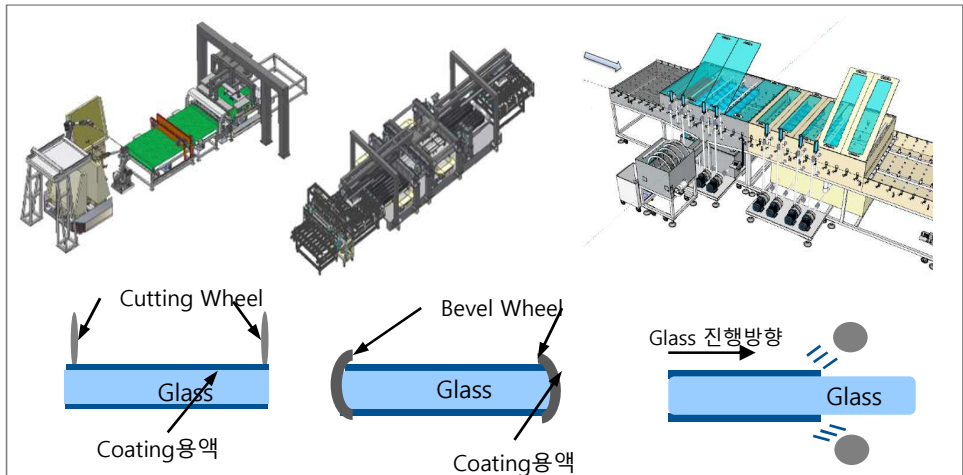
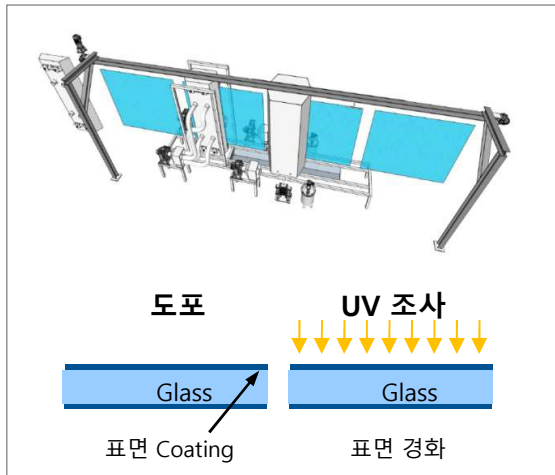
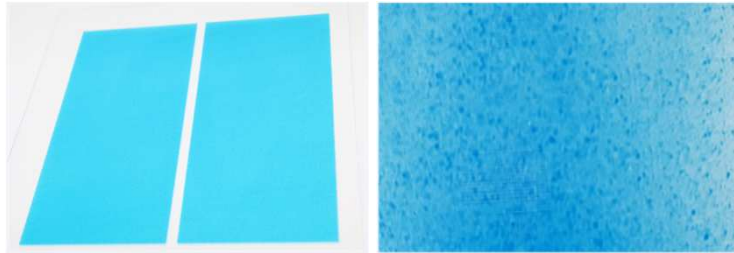
玻璃 保护液

Glass 가공공정 SCRATCH 방지, 박리 후 無 잔사

- Preventing SCRATCH during the glass processing process, no defeat/ 玻璃加工工序 防止刮伤,剥离后无残留

Screen Printing

Spray Coating



POINT

- Excellent Surface hardness
优异的表面硬度
- Curing Condition : metal halide lamp
固化条件: 紫外线灯管 (非LED)

- Fast Cure response
快速固化反应
- Easy to Peel into alkaline solution
碱性溶液易剥离

Specification / 规格	Glass Protective Ink	Remark / 备注
Color / 颜色	Blue / white	Naked eye
Thickness(μm) / 厚度	7~15	Screen Print / Spray
Viscosity(cPs) / 粘度	400-25,000	Temp. 23°C, Rotation : 25rpm
Thixotropic index / 触变指数	1.3 ± 0.2	Measurement rpm : 5rpm & 50rpm
Adhesion / 粘附	100/100	Cross cut test
Hardness / 硬度	≥ 3H	Pencil Hardness Tester
Storage (°C) / 贮存条件	5°C-30°C	Room temp
Warranty (months) / 保质期	6	In unopened original container

◆ UV irradiation conditions : 2,000mJ/cm² (365nm, Wavelength)

QUANTUM DOT

量子点

▶ YUJIN CHEMICAL



QD RESIN

LCD 用

量子点 树脂

미로 효과로 인한 배리어 특성 형상 Resin

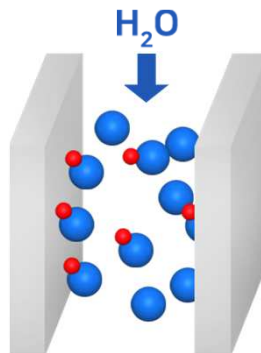
- Advanced barrier resin / 因迷路效果形成的 阻隔膜 特性形状 树脂



POINT

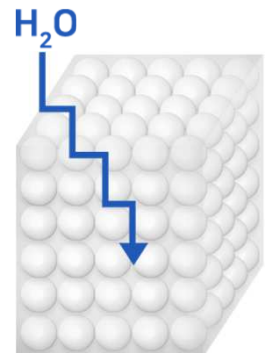
- Low moisture absorption
低吸湿性
- High Photo Speed (UV Lamp Cure)
高光速 (紫外线灯固化)
- Excellent Heat Stability
优异的热稳定性
- Excellent Reliability
卓越的可靠性

Normal Resin



Micro-defect (>1nm)

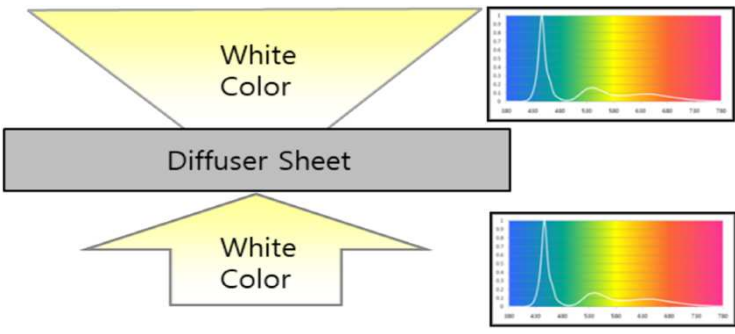
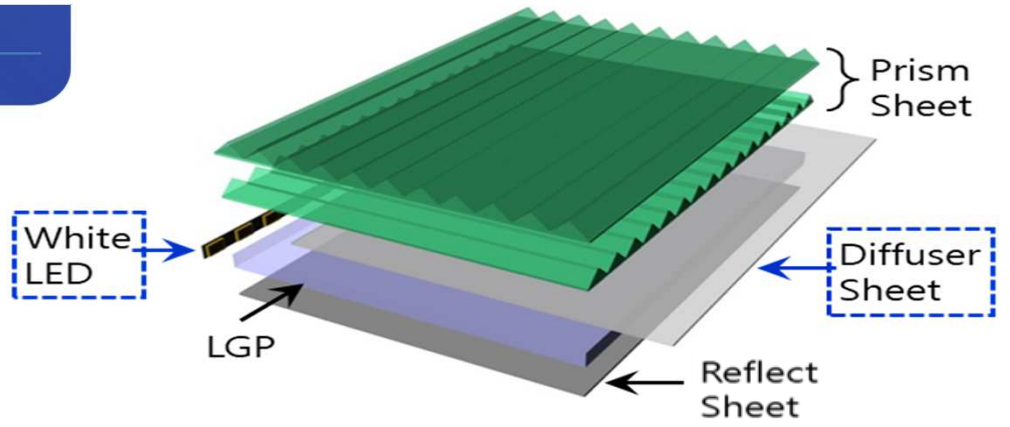
New Resin



Lattice-defect (0.2~0.3 nm)

Specification / 规格	UV Cure YU-QL1806	Remark / 备注
Substrate / 基层	Barrier film	
Binder / 粘合剂	Polyester	Functional : Multi
Appearance / 外观	Light Yellow	
Viscosity(cPs) / 粘度	450 ± 100	
UV Intensity(mJ) / 紫外线强度	1,000	Hg Lamp
Solid Content / 固体含量	100%	
Density(g/cm ³) / 密度	1.08	
Storage Temp(°C) / 储存温度	3 ~ 30	

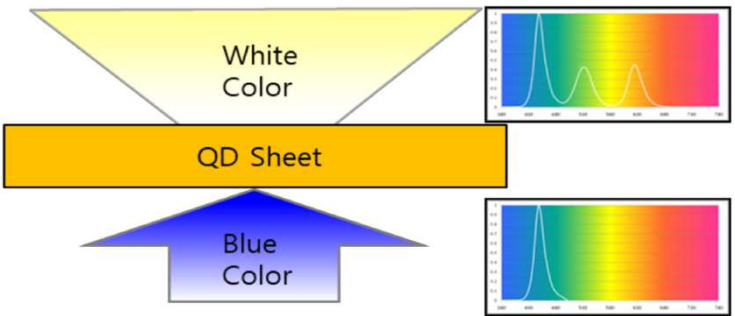
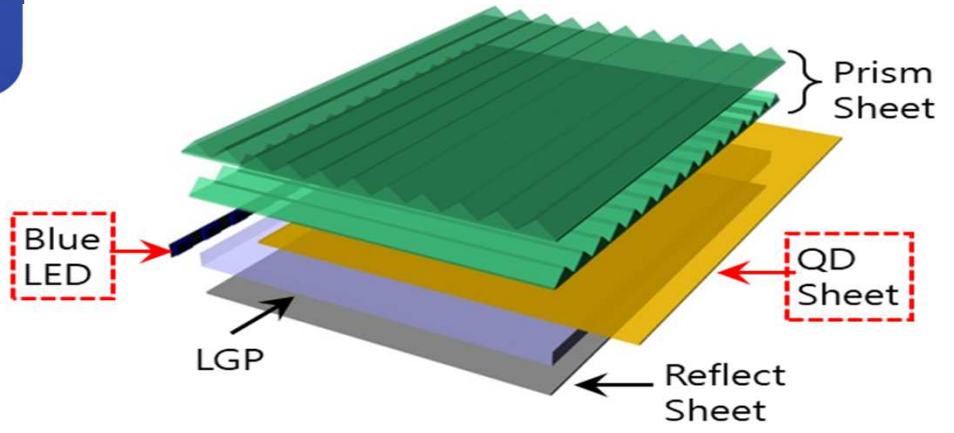
Normal BLU



Diffuser Sheet의 확산 기능으로 LGP P/T 은폐

LGP P/T Hiding with Diffuser Sheet Diffusion
Diffuser Sheet 以 扩散功能 隐藏LGP P/T

QD BLU



QD Sheet에 의해 Blue Color를 White Color로 변경

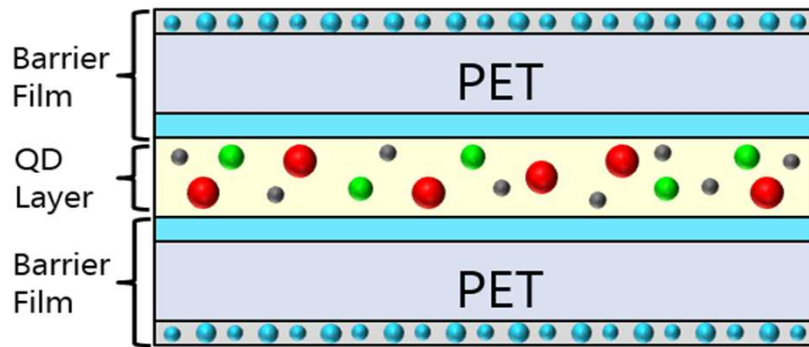
Change Blue Color to White Color by QD Sheet
因QD Sheet 蓝色 变更为 白色

내/외부 확산 기능으로 Diffuse Sheet 대체 가능

Diffuse Sheet can be replaced with internal/external diffusion functions
内/外部扩散功能可以代替扩散片

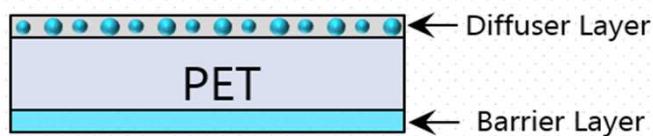
QD Sheet 结构

Structure of the QD Sheet



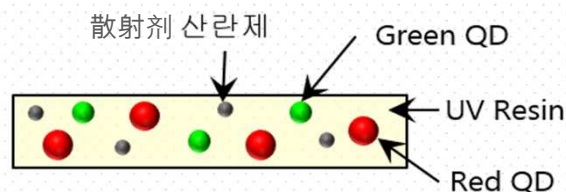
Barrier Film structural detail

Barrier Film 详细结构



QD Layer structural detail

QD Layer 详细结构



QD Sheet 功能

Features of QD sheet

QDEF는 LCD에서 색좌표 범위를 넓혀줌

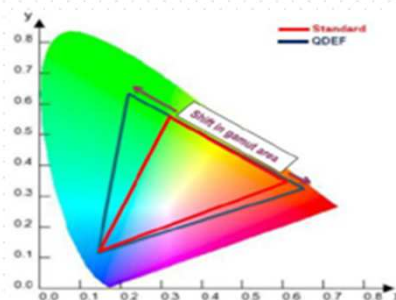
QDEF widens color coordinates in LCD / QDEF在LCD中扩大色彩坐标范围

표준 LCD Color Filter를 통과시키면 Red와 Green 광분포가 넓어짐

- Extends Red and Green light distribution by passing standard LCD Color Filter
- 如果通过 标准LCD Color Filter,红和绿光分布会变宽

LCD에 QDEF를 사용하면 Green과 Red의 좁은 중심 파장이 조정되어 넓은 COLOR GAMUT SIZE를 구현할 수 있다

- Using QDEF for LCDs, narrow center wavelengths of Green and Red can be adjusted to implement a wide COLOR GAMUT SIZE.
- 在LCD中使用QDEF的话,Green和RED的狭长中心波长 经过调整,可以实现宽COLOR GAMUT SIZE



기존 디스플레이 특징

Features of Existing Display / 现有显示屏 特征



55" 평가기준	55" 4K WLED LCD TV	55" 4K QDEF LCD TV	Ratio: QDEF / WLED
Avg. Brightness (nits)	446	508	114%
BLU Power(W)	136	113	83%
Color Gamut(NTSC)	72%	100%	139%



유진케미칼

YUJIN CHEMICAL

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FAX : +82-51-664-7117

KNN 2407 , #30 , Centum seo-ro, Haeundae-gu, Busan, Korea

▶ R&D CENTER | PRODUCT

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TEL : +82-54-461-2107

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