

芴系丙烯酸酯

Fluorene acrylate

高折射率·高耐热·高柔软性

High refractive index, High heat resistance, High flexibility

牌号一览·基本物性 / Grade lineup, Basic properties

		丙烯酸酯单体 Acrylate monomer	
产品名 Product name		OGSOL EA-0200	OGSOL EA-0300
特点 Feature		高折射率·高耐热 High refractive index High heat resistance	高柔软性·高耐热 High flexibility High heat resistance
官能基数 The number of functional groups		2官能 丙烯酸酯 Bifunctional acrylate	2官能 丙烯酸酯 Bifunctional acrylate
固化前 Before curing	折射率 (n _D ²⁵) Refractive index	1.616	1.555
	色相 (APHA) Color (APHA)	<100	<100
	溶剂有无 Solvent presence	约5%苯 5% toluene	无 Solventless
	粘度 [mPa·s] (25℃) Viscosity	>100,000	6,000~8,000
固化后 After curing	折射率 (n _D ²⁵) Refractive index	1.626	1.576
	全光线透过率 [%] total light transmittance 膜厚 Thickness : 20 μm	89.4	90.9
	Tg (DSC) [℃]	211	17
	铅笔硬度 Pencil hardness (PET10 μm)	3B	6B
	体积收缩率 [%] Volume shrinkage [%]	0.5	0.7
	吸水率 [%] Water absorption [%]	0.08	2.60
	拉伸弹性率 [MPa] Tensile elasticity	3,733	23
	拉伸强度 [MPa] Tensile strength	21	5
	拉伸率 [%] Tensile elongation	1	23
	弯曲弹性率 [MPa] Flexural modulus	3,410	19
	弯曲强度 [MPa] Flexural strength	23	3
包装 Package		10kg/灌 Oil tin	18kg/灌 Oil tin 200kg/灌 drum

■推荐UV固化条件 Curing condition

【固化条件】Curing condition

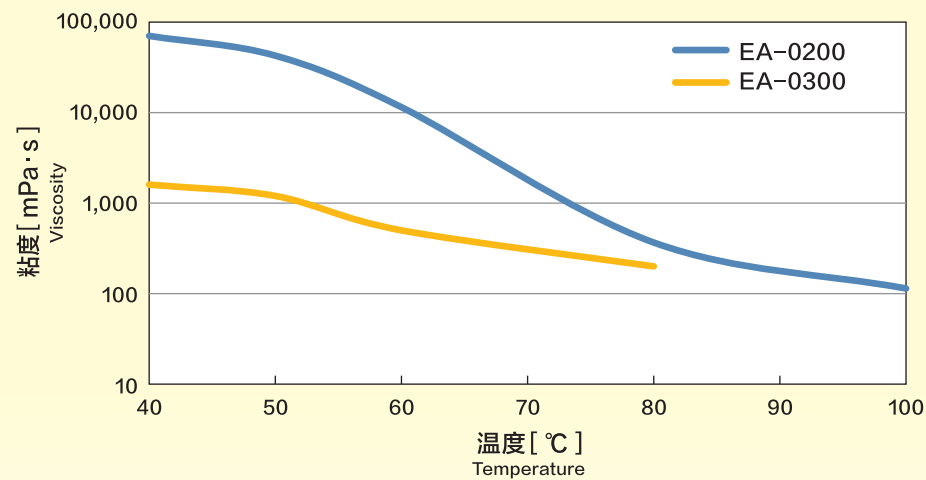
光聚合引发剂：光引发剂184：3phr
Photopolymerization initiator : 3phr Irgacure 184

光源：高压荧光灯
Irradiation device : High-pressure mercury lamp

集成UV光学强度：360mJ/cm² (薄膜)
Integrated UV light intensity : 360 mJ/cm² (film)

◆表中数值为参考值非保证值
Values in the tables are for reference only, not guaranteed for the products.

EA-0200、EA-0300 温度与粘度变化 / EA-0200, EA-0300 Temperature by viscosity



※EA-0200使用注意 Cautions for handling of the EA-0200
EA-0200是粘度非常高的液体,常温下也没有流动性。
使用时通过可溶的有机溶剂来稀释,70℃~80℃的温度下加热容器来降低粘度。
EA-0200 is a liquid of very high viscosity, there is no liquidity in the atmosphere at room temperature.
When using, please use to be diluted soluble organic solvent described above, or to lower the viscosity for each vessel heated in an atmosphere of 70~80℃.

测定设备：E型粘度计
Measuring equipment :
E-type viscometer

溶剂溶解性 / Solvent Solubility

■试验方法 Test method

针对各溶媒制作50wt%的溶液,通过以下测定条件评估溶解性。
The solubility was evaluated under the following conditions for the 50 wt% solution prepared with each solvent.

溶剂分类 Solvent group	溶剂 Solvent type	EA-0200	EA-0300
酮 Ketone	MEK(丁酮) Methyl ethyl ketone	◎	◎
	MIBK(甲基异丁酮) Methyl isobutyl ketone	○	◎
	环己酮 Cyclohexanone	○	◎
	丙酮 Acetone	◎	◎
醚 Ether	乙二醇乙醚(乙二醇单甲醚) Cellosolve (Ethylene glycol monomethyl ether)	○	◎
	二乙二醇单甲醚 Diethylene glycol monomethyl ether	○	◎
	1,4-二氧六环 1,4-Dioxane	○	◎
酯 Ester	PGMEA(丙二醇单甲醚乙酸酯) Propylene glycol monomethyl ether acetate	○	◎
	醋酸乙酯 Ethyl acetate	◎	◎
芳香烃 Aromatic hydrocarbon	甲苯 Toluene	◎	◎
乙醇 Alcohol	甲醇 Methanol	×	○
其他 Others	DMF(N,N-二甲基甲酰胺) N,N'-Dimethylformamide	○	◎
	NMP(N-甲基吡咯烷酮) N-Methyl-2-pyrrolidone	○	◎
	γ-丁内酯 γ-Butyrolactone	○	◎

【评估标准】Evaluation Criterion
◎：常温1小时以内溶解
Soluble within 1h at an ambient temperature
○：根据溶解时间和温度(50℃)变更溶解
Soluble in longer hours or at a higher temperature (50℃)
△：浓度10%以内溶解
Soluble at 10% or less concentration
×：不溶解
Insoluble

【测定条件】Test Condition
温度：室温或者50℃
Temperature : Ambient or 50℃
溶液浓度：50wt%
Concentration : 50 wt%
搅拌方法：通过搅拌机混合
Stirring : Using a shaker
评估方法：目视
Evaluation : Visual observation

‘Matsukane’

松金国际贸易南通有限公司
SONGJIN INTERNATIONAL TRADE NANTONG CO.,LTD
江苏省南通市崇川区新康路33号云院13栋
Building 13, Yunyuan, No.33, Xinkang Road,
Chongchuan District, Nantong City, Jiangsu Province
TEL:13390981305
HTTP://www.matsukanechem.com

芴系丙烯酸酯

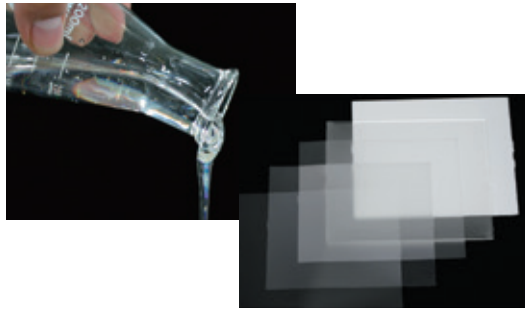
Fluorene acrylate

高折射率·高耐热·高柔软性

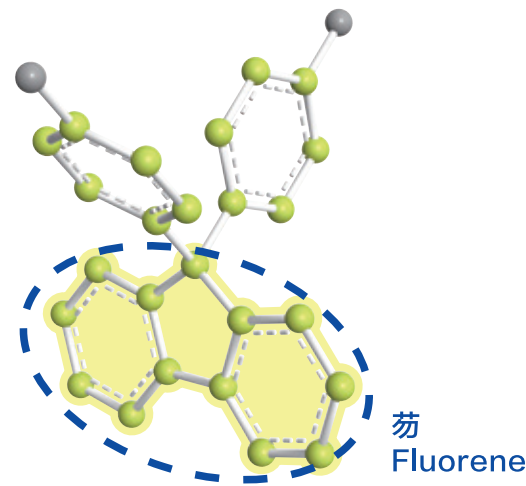
High refractive index, High heat resistance, High flexibility

芴系构造的丙烯酸酯。由于具有立体的大型轴节结构,有一般丙烯酸酯没有的特性。拥有一般环氧树脂所没有的优质特性。

The acrylate of fluorene, for its three-dimensional structure of bulky cardo, promises the properties that you have not seen in conventional acrylate.

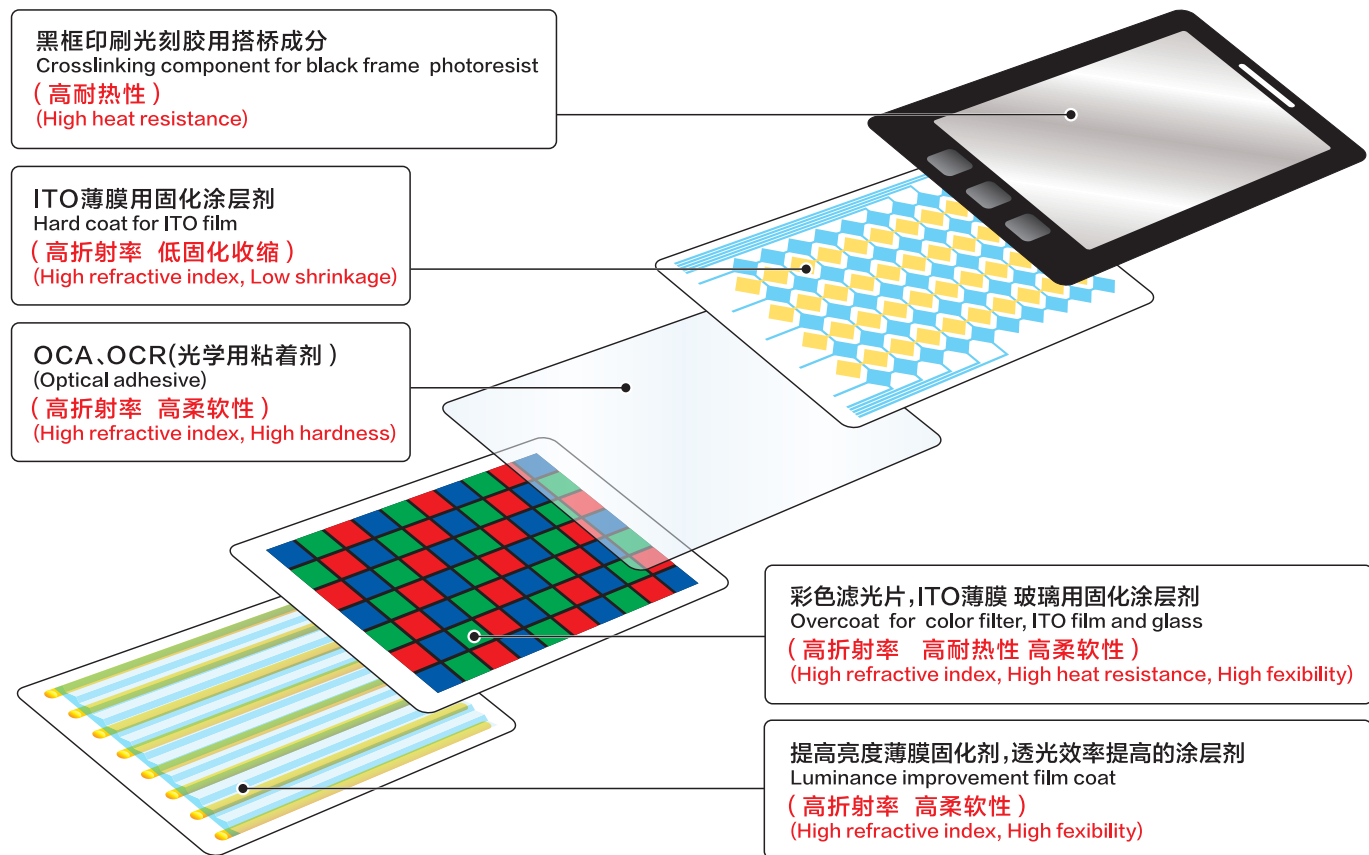


芴系丙烯酸酯的特点 / Features of Fluorene Acrylate



- **高折射率 (固化后折射率1.6以上)**
High refractive index (1.6 or higher refractive index after curing)
- **高耐热性**
High heat resistance
- **低固化收缩**
Low shrinkage by curing
- **高柔软性**
High flexibility

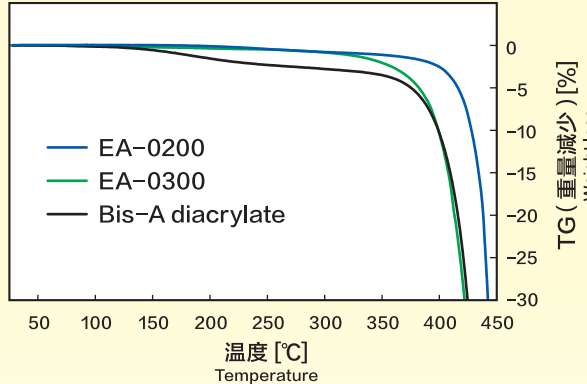
芴系丙烯酸酯的适用材料 / Application of Fluorene Acrylate Materials (Image)



耐热性评估 / Thermal resistance evaluation

芴系丙烯酸酯因为有刚直的构造,耐热黄变性,耐热稳定性都很好。
Fluorene acrylate is excellent thermal stability and thermal yellowing due to rigid structure.

■ 耐热稳定性评估 Thermal stability evaluation



产品名 Product name	重量减少5%时温度 [°C] 5% weight reduction temperature
EA-0200	416
EA-0300	382
Bis-A diacrylate	375

试验条件: TG-DTA (热重量减少测定)
Test condition : TG-DTA (Measurement of weight reduction with heat)
测定样品: 聚合引发剂: 光引发剂184:3phr
Measurement sample : photo initiator 3phr Irgacure 184
UV光学强度 2,000mJ/cm²
UV accumulated light amount 2,000mJ / cm²
膜厚: 2mm
Thickness: 2mm

■ 耐热黄变性评估 Thermal yellowing evaluation

● 80℃×500小时 Test condition : 80℃, 500hours

被着体: 玻璃 Adherend: Glass
膜厚: 20 μm Resin thickness: 20 μm

样品名 Sample name	OGSOL EA-0200		OGSOL EA-0300	
试验条件 Test condition	试验前 Before the test	80℃×500小时后 After 80℃×500hour	试验前 Before the test	80℃×500小时后 After 80℃×500hour
外观 Appearance				
全光线透过率 (%) total light transmittance	98.3	98.0	99.1	98.7

● 230℃×30分 Test condition: 230℃, 30minutes

被着体: 玻璃 Adherend: Glass
膜厚: 20 μm Resin thickness: 20 μm

样品名 Sample name	OGSOL EA-0200		OGSOL EA-0300	
试验条件 Test condition	试验前 Before the test	230℃×30分后 After 230℃×30min	试验前 Before the test	230℃×30分后 After 230℃×30min
外观 Appearance				
全光线透过率 (%) total light transmittance	98.8	98.6	99.4	97.9

EA-0300因为有芴结构所以同时具备耐热黄变性和高柔软性
OGSOL EA-0300 Shows both thermal yellowing resistance and high flexibility derived from fluorene structure.

■ 耐热黄变性评估 Thermal yellowing evaluation

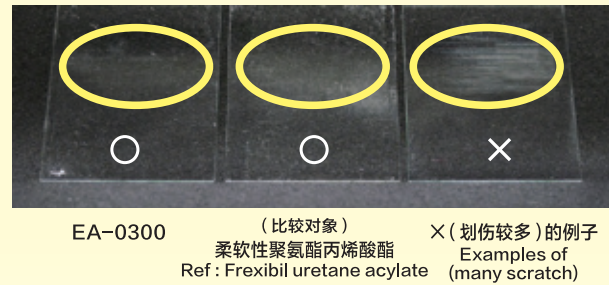
● 230℃×30分 Test condition: 230℃, 30minutes

被着体: 玻璃 Adherend: Glass
膜厚: 20 μm Resin thickness: 20 μm

样品名 Sample name	OGSOL EA-0300		(参考) (reference) 聚氨酯丙烯酸酯 Urethane acrylate	
试验条件 Test condition	试验前 Before the test	230℃×30分后 After 230℃×30min	试验前 Before the test	230℃×30分后 After 230℃×30min
外观 Appearance				
全光线透过率 (%) total light transmittance	99.4	97.9	99.7	95.8

■ 耐划伤性评估 Scratch resistance evaluation

【试验方法】 Test method
测定机器 Measurement equipment : HEIDON-14DR (新东化学 (株) 制)
测定条件 Measurement condition : 重量250g×10重复、钢丝球#0000、速度1mm/s
Load 250g × 10 round trip, Steel-wool SW#0000, Speed 1mm/s
树脂膜厚 : 约20 μm
Resin thickness : Approx 20 μm
评估方法 Evaluation : ○: 无划伤 △: 划伤1~5本 ×: 划伤较多
Ref : No scratches, △: 1~5 This scar, ×: Numerous scratches



EA-0300和柔软的普通聚氨酯丙烯酸酯比较具有同等的耐划伤性,可以抑制高温下的着色。
OGSOL EA-0300 show the equivalent of scratch resistance compared to the flexible general-purpose urethane acrylate and it has been reduced coloring at high temperatures.

全光透过率 / Total light transmittance

