



PHOTOLUMINESCENT PIGMENT

JUNTING

Photoluminescent pigment is **a new energy material** developed by our company, which is rare-earth activated alkali earth aluminate or silicate. It absorbs all types of visible light, which can enable glowing for 20+ hours with only 5-15 minutes of exposure to illumination. The material is **non-toxic, recyclable, and performs consistently well** regardless of application – For example ink, paints, plastics, rubber and ceramics etc.

our pigments have more than ten different appearance colors and show brilliant glow colors, full of scientific and technological sense. At present, it has been used more and more in daily life, such as toys, craft gifts, transportation, fire evacuation, fishing tackle, fiber, clothing and other fields.

Characteristics:

1. Non-toxic, Non-radioactive, **RoHS** qualified.
2. The particle size is evenly distributed with narrow distribution area, and can be processed to **5-300μm** according to demand. And for same model of pigment, the larger the particle size, the better the brightness.
3. Stable chemical properties, resistant to long-term exposure to strong ultraviolet rays, Operating temperature: - **40°C~800°C**.
4. Excitation light: 5500K-6500K, it features quick light absorption and long afterglow, and can emit light under only 25Lux intensity excitation.
5. Long lifespan, fading period > **20 years**, absorb light then emit light is countless cycles of use.
6. Photoluminescent pigment can be added to transparent or translucent carrier such as ink, plastic, glaze, resin, etc., through printing, injection molding, gluing, coating and other processes to glow the carrier.
7. Aluminate is easy to be hydrolyzed if mixed with water-based paint.

Series:

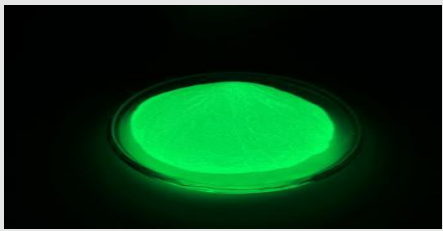
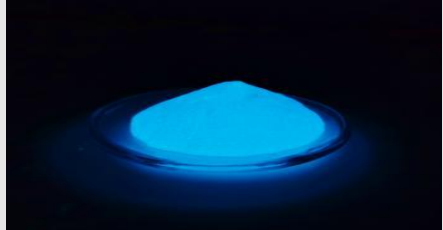
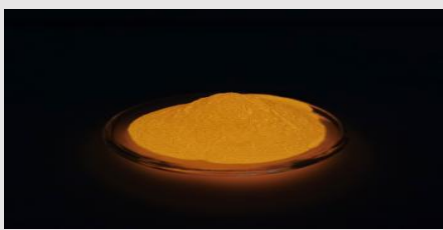
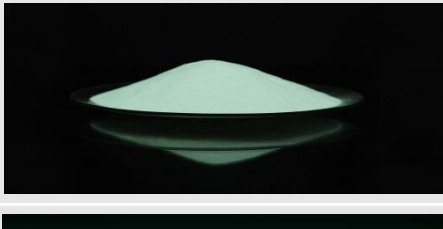
Item	Model	Material	Appearance (Daytime)	Glowing color (Night)
1	JTO	alkali earth aluminate	light yellow	yellow-green
2	JTB	alkali earth aluminate	light yellow	blue-green
3	JTS	rare-earth activated silicate	off-white	sky-blue
4	JTR	traditional sulfide	white or reddish	red,orange,white
5	JTFS	JTO、JTB、JTS waterproof coated		
6	JTPS	neon series	green、yellow、orange、peach etc. 12 colors in total.	

Model:

Glowing color (Night) Molecular formula	Model No.	D50 (μm)	Afterglow intensity (mcd/m^2)		Application
			10 (min)	60(min)	
Yellow-green $\text{SrAl}_2\text{O}_4\text{:Eu,Dy}$	JTO-9D	58-63	550	85	molding injection, printing,Glue filling,spraying etc.
	JTO-9DE	37-42	480	65	
	JTO-9E	22-27	320	45	molding injection, printing,coating etc.
	JTO-9F	15-20	280	35	printing,coating,fibre drawing etc
	JTO-W-7D	58-63	650	110	molding injection, printing,Glue filling,spraying etc.
	JTO-W-7DE	37-42	600	90	
	JTO-W-7E	22-27	570	80	molding injection, printing,coating etc.
	JTO-W-7G	8-13	330	45	printing,coating,fibre drawing etc
	JTO-W-7H	5-8	180	25	offset printing,fibre drawing etc.
Blue-green $\text{Sr}_4\text{Al}_{14}\text{O}_{25}\text{:Eu,Dy}$	JTB-7D	58-63	520	90	molding injection, printing,Glue filling, spraying etc.
	JTB-7E	22-27	280	42	molding injection, printing, coating etc.
	JTB-7F	15-20	240	35	printing, coating, fiber drawing etc
Sky-blue $\text{Sr}_2\text{MgSi}_2\text{O}_7\text{:Eu,Nd}$	JTS-D	58-63	220	27	molding injection, printing,Glue filling,spraying etc.
	JTS-E	23-28	180	20	molding injection, printing,coating etc.
	JTS-F	15-20	160	15	printing,coating,fibre drawing etc
Red $\text{Y}_2\text{O}_3\text{:Eu}$	JTR	15-25	20	1	molding injection,printing,spraying etc.
Orange	JTOR	15-25	28	2	molding injection,printing,spraying etc.
White	JTW	15-25	160	20	molding injection,printing,spraying etc.
Purple $\text{CaAl}_2\text{O}_4\text{:Eu,Nd}$	JTPU	25-35	40	6	molding injection,printing,spraying etc.

Luminance test conditions: D65 standard light source at 1000Lux luminous flux density under temperature 23℃.

Excitation time: JTO for 5MIN; JTO-W for 10MIN.

Emitting color	Daytime Appearance	Dark Appearance
Yellow-green		
Blue-green		
Sky-blue		
Red		
Orange		
White		
Purple		

Notes:

1. Photoluminescent pigment density: $3.4\text{--}3.6\text{g/cm}^3$, stir frequently in the liquid or molten carrier to ensure the uniformity of the pigment during the process.
2. Most of photoluminescent pigment is slightly soluble in water, and easy to react with water, water-soluble and acidic substances, it is recommended to **be waterproof through coating process** when used in these substances.
3. Prolonged contact or friction with **metal surfaces** should be avoided.
4. Carrier must be relatively transparent, please try not to mix with **dark materials** to avoid the influence on absorption and luminescence.
5. Processing temperature $> 700\text{ }^{\circ}\text{C}$ will affect the performance of photoluminescent pigment, and reducing the brightness and afterglow time.
6. Storage: store in a **dry environment**

Packaging:

1. Inner packing: 1kg/bag, 5kg/bag (**PE plastic bag**)
2. Outer packing: paper or plastic barrel, **25kg/barrel**.
3. Package can be customized.

