



# Shanghai King Chemical Co.,Ltd

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## TECHNICAL DATA SHEET

### HK Series daylight fluorescent pigments

#### Introduction:

HK series is a formaldehyde free fluorescent pigment for plastics of low temperature processing, low plate-out and cost effectively. HK Series is easily applied in the coloring of various polymers with excellent performance in pigmentation, equality, brightness and vividness.

#### Applications:

- extrusions, injection moldings, and blow moldings
- Masterbatch

#### Technical Properties:

|                         |           |
|-------------------------|-----------|
| Average Particle Size   | ≤100μm    |
| Softening Point         | >80°C     |
| Application Temperature | 135-220°C |

#### Available Colors:

|       |            |       |               |
|-------|------------|-------|---------------|
| HK-11 | Pink       | HK-16 | Orange yellow |
| HK-12 | Cerise     | HK-17 | Yellow        |
| HK-13 | Red        | HK-18 | Green         |
| HK-14 | Red orange | HK-21 | Magent        |
| HK-15 | Orange     |       |               |

#### Lightfastness:

Fluorescent pigments are more fugitive than conventional pigments. They are stable to indoor light or outdoor conditions other than direct sunlight. By exposure to outdoor sunlight the color will change, whereby the degree of fading is depending on following factors:

- Color of the pigment ; ■ Type of binder polymer
- Pigment loading and thickness of the end product. The higher the pigment concentration is, the better the lightfastness is;
- Intensity and angle of the incident sunlight.

**The lightfastness may be improved by including UV-absorber(s) in the formulation and/or by making use of clear overcoats containing UV-absorber(s).**

#### Heatstability:

If used in general plastic applications HK pigments can perform well processing temperature below 210°C. It may stand higher temperature but test is needed. Heatstability also depends on processing time.

**Due to the low softening point of HK pigments, it is suggested to be stored in cool and dry place.**

#### Additives:

Certain metal ions and nucleated polymers are known to cause color changes and loss of brightness with fluorescent colorants. Studies have shown that plastics processing additives containing "free" zinc, magnesium, calcium and iron will cause deleterious color effects when used in conjunction with HK pigments. If a metal containing additive must be used, it should be thoroughly tested to make sure the color stability of HK pigments.

#### Storage:

HK fluorescent pigments are delivered in cartons with PE lining, net weight 25kg. It should be kept in cool place and away from heat. All opened bags should be carefully resealed immediately after use.

#### Toxicity:

HK fluorescent pigments are essentially non-toxic and non-hazardous with zero formaldehyde emission and extremely low heavy-metal content. Safety data sheet (SDS) is available upon request.