

FLUORESCENT WATER DISPERSIONS

DAY-GLO Fluorescent Water Dispersions were developed for applications in latex and tempera paints, water colors, paper coatings and other aqueous systems. They are anionically stabilized, offer excellent tinctorial strength and eliminate dusting encountered when using dry pigments.

Available Colors:

| | <u>WAX</u> | <u>WT</u> |
|----------------|------------|-----------|
| Aurora Pink* | WAX-11 | WT-11 |
| Neon Red* | WAX-12 | WT-12 |
| Rocket Red* | WAX-13 | WT-13 |
| Fire Orange* | WAX-14 | |
| Blaze Orange* | WAX-15 | WT-15 |
| Saturn Yellow* | WAX-17 | WT-17 |
| Signal Green* | WAX-18 | WT-18 |

Product Description:

DAY-GLO Fluorescent Water Dispersions contain 50% fluorescent pigment and no binder. They are compatible with a wide range of aqueous systems and are available in two product lines:

| <u>Product Line</u> | <u>Application</u> | <u>Properties</u> |
|---------------------|--|--|
| WAX | Paper Coating Textile Aqueous Inks | -contain DAY-GLO AX-Pigments -high tinctorial strength -excellent money value |
| WT | Latex Paint Tempera Paint Aqueous Inks Waterborne Coating | -contain DAY-GLO T-Pigments -excellent solvent resistance -very good shelf stability |

The pH of a formulation, as well as certain additives, can influence the performance of the fluorescent dispersions and their effects should be tested. We recommend maintaining a pH of 7-8 for best stability.

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Color Development:

DAY-GLO Fluorescent Water Dispersions are transparent. To optimize the fluorescent effect they should be applied over white. If adding TiO₂, the amount should not exceed 2% based on the weight of the fluorescent dispersion. The addition of too much white will reduce the fluorescent effect.

Lightfastness:

DAY-GLO Fluorescent Water Dispersions exhibit good lightfastness for interior applications but have limited use in exterior applications. Evaluations should be conducted to determine if the use of DAY-GLO dispersions will meet lightfastness requirements.

Various approaches can be taken to improve outdoor performance such as:

- increased loading of DAY-GLO Dispersions.
- heavier film deposit or multiple coats.
- additions of UV stabilizers.
- clear top coat containing UV stabilizers.

Stability:

DAY-GLO Fluorescent Dispersions offer storage stability of two months. All dispersions should be protected from freezing.

Typical Physical Properties:

| | |
|------------------------|-----------|
| Percent Pigment Solids | 50% |
| Specific Gravity | 1.14 |
| Weight Per Gallon | 9.5 |
| Average Viscosity | 3,500 cps |
| Average pH | 6.8-7.2 |

Suggested Formulations:

A. Fluorescent Paper Coating

| | <u>Pounds</u> |
|---------------------------------------|---------------|
| DAY-GLO WAX-14 (50% Solid) | 76.8 |
| Glycerine | 1.5 |
| Polyvinyl Acetate Binder (45% solids) | <u>21.7</u> |
| | 100.0 |

Thin with water to desired viscosity.

B. Exterior-Interior Vinyl Fluorescent Flat, Finish

| | <u>Pounds</u> | <u>Gallons</u> |
|--|---------------|----------------|
| 2% Methocel K4MDGS 4000 cps ¹ | 22 | 2.65 |
| Ethylene Glycol | 25 | 2.75 |
| Nopco NDW ² | 1 | .12 |
| Tamol 731-25% ³ | 2 | .25 |
| DAY-GLO WT (50% Solid) | 517 | 53.80 |
| Flexbond 315 ⁴ | 400 | 44.00 |

C. Interior Vinyl Fluorescent Flat, Finish

| | <u>Pounds</u> | <u>Gallons</u> |
|---|---------------|----------------|
| 2% Methocel K4MDGS 4000 cps ¹ | 58 | 7.00 |
| Ethylene Glycol | 25 | 2.75 |
| Nopco NDW ² | 1 | .12 |
| Tamol 731-25% ³ | 2 | .25 |
| DAY-GLO WT (50% Solid) | 517 | 53.80 |
| Flexbond 315 ⁴ | 400 | 44.00 |
| TiO ₂ Dispersion 877-0018 ⁵ | 13 | .77 |
| Permanent Yellow Dispersion 877-2501 ⁵ | 3 | .31 |

| | | |
|------------|---------------|------------|
| Constants: | Yields | 102 Gals. |
| | Total Solids | 49.5% |
| | P.V.C. | 50.0% |
| | Weight/Gallon | 9.40 |
| | Viscosity | 75-85 K.U. |
| | Grind | 6H |
| | Gloss | Flat |

¹Dow Chemical Co.

²Nopco Chemical Div.

³Rohm and Haas Company

⁴Air Products & Chemicals, Inc.

⁵Tenneco Chemicals Inc.