



# HyFlex UVD

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HyFlex is an extremely flexible UV curable digital printing ink specially formulated for applications of various plastics where high level flexibility is needed. HyFlex is ideal for routing and saw cutting. HyFlex ink exhibits outstanding elongation characteristics while maintaining excellent adhesion and opacity. Additionally, this ink provides ideal characteristics for heat-bending and routing acrylic PETG and Polycarbonate sheets with no chipping or loss of adhesion.

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## Performance Properties

- Excellent elongation and flexibility
- Flexible for multi-layer applications
- Elevated color strength for backlit applications
- Extremely broad adhesion range
- Excellent color array & densities
- Can be used on Flatbed or Roll-to-Roll presses
- HyFlex will not chip or crack during routing, plotter cutting, sawing or die-cutting.

## Curing/Processing Guidelines

Ink will cure well when utilizing an optimal cure window of 310 - 350 mJ / , 755 mW is generally achieved with two (2) 300 watt per inch mercury vapor lamps. This should provide thorough cure of the product. Adhesion should be a minimum of 95% from curing unit with final adhesion developing within four (4) hours of initial polymerization.

If a loss of gloss or adhesion due to insufficient cure is noticed, a decrease of saturation levels will increase light penetration and improve cure.

The HyFlex system, when properly cured develops an extremely durable and flexible ink film. Even though the cured ink film has been engineered to optimize processing and handling, the printer must assume responsibility for pre-testing and qualifying production parameters prior to printing.

The intensity of cure, weight or caliper of the material and/or elevated ambient temperatures and humidity of the printing and storage environments will influence some media.

## Recommended Substrates

- PETG
- Polycarbonate
- High Impact Polystyrene (HIPS)
- PVC
- Acrylic
- HDPE (min 40 dyne)
- ABS
- Expanded PVC
- Pressure Sensitive and Reflective vinyl's
- Coroplast

## Light fastness

Emmaqua extensive weathering tests are currently in progress. Estimated exterior durability is three (3) to five (5) years until actual tests are completed. Actual exposure tests should far exceed three (3) to five (5) years.

Accelerated machine weathering's are reference standards and can not precisely reproduce actual outdoor performance. Based on prior correlation of accelerated testing versus real time exposure, 500 hours is equated to approximately one year, 45° south Florida.

## Storage

Care should be taken to store ink in tightly closed containers located in a cool (60 - 80°F/15 - 27°C) dark place. With suitable conditions, unopened ink is expected to have a shelf life of approximately twelve (12) months from date of manufacture.

## Precautions

Read the material safety data sheet prior to processing. It contains instructions for precautions to be taken when handling inks. If ink comes in contact with skin, wipe ink off with a clean, dry cloth (do not use solvent). Wash and rinse the affected area with soap and water.

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