



The functional color company®

**ARAPRINT-10 in short:**

- \* First fluorescent emulsion for OFFSET, UV curing and letterpress inks at once.
- \* 0% VOC
- \* 0% mineral printing oils
- \* Excellent balance between color strength and brightness
- \* Excellent tack stability
- \* Excellent setting
- \* Optimal thorough drying

# ARAPRINT-10 SERIES

**OFFSET fluorescent inks**  
**OFFSET UV CURING fluorescent inks**  
**LETTERPRESS fluorescent inks**  
**BRIGHTENING conventional inks**

## Regulatory & Ecotox

- **Free of mineral oils**
- **Free of volatile organic compounds (VOC).**
- All non-polymeric components are registered in EINECS and TSCA (including polymers in TSCA).
- All non-polymeric components are registered respectively preregistered in REACH
- EN71 part 3 conformity (purity requirement). Still tests have to be carried on the final application.
- Heavy metals free (with exception of the natural values in the ppm range).
- For detailed information, please consult the individual MSDS.

## Technology & Applications

ARALON® ARAPRINT-10 is the result of our cooperation with ground breaking research projects at university level in the fields of emulsion polymerisation and printing technology .

Unique emulsion technology allows the encapsulation of fluorescent dyes in cured modified melamine resin spheres. The submicron spheres are stabilized in a modified proprietary alkyd resin.

OFFSET and UV Curing printing applications produce a very thin printing layer on the coated substrates requiring colorants with very high color strength.

ARAPRINT-10 series products are fluorescent emulsions for pure, brilliant OFFSET, UV curing and letterpress prints with excellent balance between color strength and brightness combined with best compatibility with the OFFSET, UV curing and Letterpress process.

While many OFFSET resins are suitable for the preparation of conventional pigment dispersions, ARALON have developed a sophisticated, specifically modified OFFSET resin for the ARAPRINT-10 series

ARAPRINT-10 is therefore unique in its multivalent application and offers an ideal base for the development of OFFSET inks as well as of UV Curing inks, in addition to being an optimal fit for letterpress inks.

## Light Fastness & Heat Stability

### Light Fastness

ARAPRINT-10 series can partially resist the multiple factors, generally known to influence light fastness and, depending on the shade, values up to 3 on the BWS can be achieved.

### Heat Stability

ARAPRINT-10 series can withstand temperatures of above 100 °C for up to 5 minutes without affecting the perceived shades. Resistance to even higher temperatures is possible but for shorter exposure times.

## Storage & Shelf life

ARAPRINT-10 series products are stable. Provided they are stored in dry places at ambient temperatures (below 40 °C) the predicted shelf life is 36 months. However depending on the quality of storage conditions, products might be used beyond this shelf life period.

## Basic Formulations

SHEET-FED INK		HEATSET INK		UV CURING INK	
ARAPRINT-10	70 - 80 %	ARAPRINT-10	65 - 78 %	ARAPRINT-10	60 - 70 %
Soy Varnish	18 - 27 %	HEATSET Varnish	18 - 27 %	Dodecyl acrylate	24 - 27 %
Ce drier (6%)	0,8 - 1,3 %	HEATSET OFFSET OILS	3 - 5 %	Finishing components	1 - 3 %
Mn drier (8%)	1,2 - 1,7%	OFFSET Wax	1 - 3 %	Irgacure 1173	5 - 10%

## Specific information

**LOW ODOUR:** ARAPRINT-10 has low odor and is free of mineral oils.









**RUB & SLIP ADDITIVES:** For best rub & slip results, the addition of 2% of high quality Offset wax is recommended. Best results can be achieved by adding PTFE waxes.

**DRIERS:** A combination drier of equivalent amounts of 6% cerium & 8% manganese driers at a total amount below 3% is recommended for sheet-fed offset inks.

**Avoid additives containing HEAVY METALS:** It is recommended to **avoid** additives containing heavy metals as they quench the fluorescence, reduce brightness and darken the color. Most known examples to avoid are Cobalt based drying agents.

**BRIGHTENING CONVENTIONAL INKS & STRONGER fluorescent inks:** 10 –30 % of ARAPRINT-10 can be added to conventional inks of the similar shade in order to increase the freshness of the color and improve its brightness. Similarly, the addition of 2 - 5 % of conventional inks of a similar shade can be used to increase the color strength of ARAPRINT-10 without noticeable loss on brightness.

## Available colors

ARAPRINT-109 UV	BLUE	
ARAPRINT-100	LEMON	
ARAPRINT-103	ORANGE	
ARAPRINT-105	RED	
<b>Pantone Quality</b>		
ARAPRINT-103-P804	ORANGE	
ARAPRINT-105-P805	RED	
ARAPRINT-106-P806	PINK	
ARAPRINT-107-P807	MAGENTA	
<p>The above shades are only indicative; computer screens and conventional printers cannot reproduce true fluorescent shades.</p>		

## Mixing recommendations

ARAPRINT-109 UV BLUE at 60% and Pigment Blue 15 dispersions at 10%	Fluorescent BLUE	
ARAPRINT-100 LEMON at 60% and PIGMENT GREEN 7 dispersion	Fluorescent GREEN	
95% ARAPRINT-100 + 5% ARAPRINT-103P804	Fluorescent YELLOW	
ARAPRINT-109 UV BLUE with all other ARAPRINT-10 shades	Less color strength without brightness loss	Conserved brightness
Neighboring ARAPRINT-10 shades	Optimal fluorescent intermediate colors	Inter-mediate shades
<p>For more hiding power use ZnS pigment dispersions instead of TiO<sub>2</sub> pigment dispersions to preserve optimal brightness, especially under UV light.</p>		
ARAPRINT-10 at 10-30% in conventional inks of similar shade	Increase freshness of conventional colors	Fresh shades
2 - 5 % of conventional inks of similar shades to ARAPRINT-10 colors	Higher color strength without noticeable loss of brightness	Stronger shades

## Physical & Chemical properties

- Resin: Modified melamine resin
- Carrier: proprietary modified alkyd.
- Volatile organic compounds: 0%
- Mineral oils: 0%
- Particle size: submicron
- Grind: > 5 Hegman gauge
- Spec. Gravity: 1.14
- Bulking value: 1.16 g/ml
- Laray viscosity: 2850-4600 Poise

## Packaging

### Package = Minimal order

1 coated\* metal can = 20 kg

\* coating is colorless inside the can

Any given technical information is given on a purely informative basis.

ARALON cannot give any warranty for a particular use.



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## About ARALON:

Today, ARALON – The NEW supplier of daylight fluorescent and functional pigments. Development, manufacturing and marketing of pigments for the paints & coatings (ARACO products), plastics (ARAPLAST), aerosols (ARASOL), and printing inks (ARAPRINT) industries only commenced in 2013 at its greenfield construction in 56412 Heiligenroth, Germany, half-way between Cologne and Frankfurt. ARALON's strengths are apparent in three key areas:

- State-of-the-art encapsulation technology coupled with modern and efficient manufacturing assets and lean operations capable of delivering best-in-class fluorescent pigments at competitive cost.
- Unique fluorescent ARAPLAST-melting pigments permitting coloration of thin olefin based films in single and multilayer packaging.
- Next generation ARAGEN-chemistry enabling unprecedented light stability of formaldehyde-free fluorescent pigments without compromising other performance attributes.

*ARALON wants to surprise with best-in-class products, innovations that matter and prices hard to ignore – TRY US!*

## ARALON, What is behind the name and the logo?

ARALON was created as a name for our company based on the ARA, which is kind of colorful parrot. The wonderful and bright colors of the parrot's feathers are the result of light refraction through nano-sized holes in the natural polymer structure of the parrot feathers. Depending on the hole size and the number of feather layers results in an unlimited number of bright and colorful shades of light, seen by our eyes as being the color of the feathers themselves.

This has, for our company, a relevance of many kinds. Initially the brightness and purity of the parrot's colors is similar, but often less when compared to the brightness and purity of our fluorescent colors. Further, the colors of the feathers were created in completely natural way, which is for our R&D development, an orientation for the future horizons of the company.

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