

Bright... Brilliant...

and **Allied Applications**



ARON UNIVERSAL LIMITED



Aron Universal Limited

We are the largest manufacturer & exporter of daylight fluorescent colours from India, for the last three decades. Aron has developed wide range of fluorescent colours for various applications like,

- Paper Coating
- Textile Printing / Dyeing •
- Plastic Colouring
- Master Batch
- PVC Calendering •
- Safety Traffic Cone
- Silk Screen Inks
- Liquid Inks
- Offset & Litho Inks Bases / Inks
- Security Inks
- Paints
- Arts & Crafts
- Industrial Markers
- Crayons / Poster Colours
- Wax Colouring
- Clay Colouring

Our comprehensive product range caters to almost all conceivable requirements.

At Aron, technology has continued to grow and its in-house R&D has developed innovative products for security inks, crack detection, fugitive pigments etc.

We sell our products to more than 45 countries, across the globe and we have a world wide distribution network providing local response with prompt in stock deliveries.

New products are being developed all the time, so please get in touch with us if your need is not listed in our regular literatures.

Daylight Fluorescent colours

Conventional / normal colour can reflect, only light in visible range, in case of fluorescent colours, it even converts absorbed UV light & reflects in visible range, there by colour appears more bright than normal colour.

For example fluorescent orange colour absorbs the same orange band as the conventional, however it also converts the lower end of the spectrum and ultraviolet light into visible light of the same predominant wavelength.

Where a clean, bright conventional colour is able to reflect a maximum of 90% of a colour present in the spectrum, a fluorescent colour can reflect as much as 200-300%.

Daylight Fluorescent Pigments

Flamingo fluorescent pigments are transparent organic resin particles containing dyes which are capable of fluorescing while in solid state solution. The characteristics of fluorescent pigments will be decided by the surrounding resinous mixture.

Lightfastness

Fluorescent colours are generally more fugitive than similar hue conventional colours, the relative degree of light stability would depend on formulations, film deposits, wall thickness, additives, etc.. as well as the areas intended to use.

Daylight fluorescent pigments are stable to indoor light or outdoor conditions other than direct sunlight. They are affected by exposure to direct sunlight. The degree and effect of change is dependent on the colour, intended end usage, pigment loading and number of other factors.

Lightfastness can be improved to some extent by use of ultraviolet absorbers in the pigment formulation, clear overcoats containing ultraviolet absorbers & higher pigmentation level in the formulation. If prolonged outdoor exposure is the intended use, actual outdoor exposure tests should be conducted in order to be certain of satisfactory results.

		lx			IxT			нтрв				
SHADE	Ix-AS	lx-ASJ	lx-AD	310LF	311LF	350LF	511P	511AVM	511AQ	ST911	FFD	FF-611
Yellow 01	\checkmark											
Yellow 11	\checkmark	~	\checkmark	~	~	~	\checkmark	~	~	\checkmark	\checkmark	~
Green 02	\checkmark											
Green 12	\checkmark	~	\checkmark	\checkmark	\checkmark	~	\checkmark	\checkmark	~	~	\checkmark	~
Chrome 03	\checkmark											
Chrome 13	\checkmark	~	\checkmark	~	~		\checkmark	~	~	\checkmark		~
Orange 04	\checkmark											
Orange 14	\checkmark	~	✓	~	~	~	\checkmark	~	~	\checkmark	\checkmark	~
Red Orange 05												
Red Orange 15	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	~	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark
Red 06												
Red 16	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	~	\checkmark	\checkmark	~	\checkmark	\checkmark	\checkmark
Pink 07	\checkmark		\checkmark				\checkmark					
Pink 17	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	~	\checkmark	\checkmark	✓	\checkmark	\checkmark	\checkmark
Magenta 08	\checkmark											
Magenta 18	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark
Violet 09												
Violet 19	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark				\checkmark	\checkmark	\checkmark
Blue 10												
Blue 20	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	✓	\checkmark	\checkmark	✓

Disclaimer: Technical information, advice, statements, verbal and written suggestions, and test results are offered for guidance only and it is believed to be reliable, but are not to be construed as a warranty for which we assume no responsibility. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE. Users are responsible for testing our products and suggestions to ensure that they are suitable for the intended purpose and application prior to use.



Flamingo Fluorescent Colours **Available Colours**

✓ Colours Available



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Effect of Solvents & Plasticizers

Due to the chemical nature of fluorescent pigments, they can be affected to a greater or lesser degree, by solvents or plasticizers present in many ink and coating formulations. The table below shows the likely effects in each case.

Series Solvents	lx-AS / ASJ / AD	lxT-310 /311	lxT-310LF /311LF /350LF	ST-911
Aromatic				
Toluene	PS	NS	NS	NS
Xylene	PS	NS	NS	NS
Alcohol				
Methanol	PS	NS	NS	NS
Ethanol	PS	NS	NS	NS
Iso Propyl Alcohol	NS	NS	NS	NS
n-Butyl Alcohol	NS	NS	NS	NS
Iso-Butyl Alcohol	NS	NS	NS	NS
Ter-Butyl Alcohol	NS	NS	NS	NS
Ketone		-		
Acetone	S	PS	PS	NS
Methyl Ethyl Ketone	S	NS	NS	NS
Di Acetone	S	NS	NS	NS
Methyl Iso butyl Ketone	S	NS	NS	NS
Cyclo Hexanone	S	NS	NS	NS
lsophorone	S	PS	PS	NS
Aliphatic				
Heptane	NS	NS	NS	NS
Mineral Spirits	NS	NS	NS	NS
Naptha	NS	NS	NS	NS

The below results are obtained by dispersing 1 gm of orange pigment in 10 ml of solvent and observing after one week at room temperature(26°c). It should be noted that results may vary with other shades in flamingo product range. (Difference in temperature can also effect the degree of solvent solubility.)

Series Solvents	lx-AS / ASJ / AD	lx T -310 /311	lxT-310LF /311LF /350LF	ST-91
Ester				
Ethyl Acetate	S	NS	NS	NS
Butyl Acetate	PS	NS	NS	NS
Iso Propyl Acetate	PS	NS	NS	NS
Iso Amyl Acetate	NS	NS	NS	NS
Glycol		_		
Ethylene Glycol	NS	NS	NS	NS
Di Ethylene Glycol	PS	NS	NS	NS
Mono Ethylene Glycol	PS	NS	NS	NS
Poly Ethylene Glycol	PS	NS	NS	NS
Glycerine	NS	NS	PS	NS
Chlorinated Solvent				
Chloroform	PS	NS	NS	NS
Carbon .Tetra Chloride	PS	NS	NS	NS
Methylene Chloride	S	NS	NS	NS
Plasticizer				
Di Octyl Phthalate	PS	NS	NS	NS
Di Butyl Phthalate	PS	NS	NS	NS
Di Octyl Adipate	NS	NS	NS	NS
Di Octyl Sebacate	NS	NS	NS	NS
Epoxidized Soyabean Oil	NS	NS	NS	NS

S - Soluble

PS - Partly Soluble

NS - Not Soluble

Note : Solvents listed above **NS** may cause some degree of swelling of the pigment particles; and, for this reason formulations containing them may increase in viscosity, to some extent on standing. Mixtures of some solvents may have a much more severely effect on the pigments than the individual solvents alone.

It is impossible to completely evaluate the effect of all solvents and mixtures of solvents on the pigments, hence they must be tested for satisfactory performance in the vehicle intended to be used with them. Temperatures above 26°C will cause, the effect of solvent on the pigment, much more severely. Also heat generated while formulating systems containing fluorescent pigments should be minimized.



Paints



Introduction

Aron produces wide range of fluorescent pigments for various paint systems and applications, the right selection of Flamingo pigment is important in order to obtain optimum results.

General Information

Daylight fluorescent paints when used outdoors require the maximum lightfastness possible.

For these conditions, Flamingo IX-AS/AD series is recommended when used in combination with acrylic, emulsion, alkyd, chlorinated rubber or other paint systems not containing strong solvents.

Coatings where strong solvents are used and where softening by heat and pressure may be a problem, then IxT-310/311LF or ST-911 Series is suggested.

IxT-310LF/311LF/350LF & ST-911 Series are also recommended for water based latex systems for improved shelf life. ST-911 will give the best resistance to strong solvents, but lightfastness will be inferior to IxT-310LF/311LF/350LF Series.

Flamingo Fluorescent Dispersion - FFD series

Aron offers Fluorescent water based dispersions which are also having much better lightfastness compared to any other conventional Fluorescent pigments and can be used in any aqueous based paints/coating formulations.

Series Selection

The choice of the most suitable Flamingo series will be determined by the solvents and plasticisers used and temperatures generated during processing.

Cleanliness

All processing equipment must be extremely clean since even small quantities of nonfluorescent material can contaminate and reduce brightness and fluorescent effect.

Colour Development

Daylight fluorescent colours are translucent, not opaque, therefore fluorescent coatings should be applied over a white undercoat or diffused white surface, in order to obtain the maximum daylight fluorescent effect. Maximum colour development can be obtained by using high concentration of flamingo fluorescent pigments. Intermixing of Fluorescent colours are possible to achieve required colour shade.

These bright colours, which are highly visible in all lighting conditions, can be used in paint for safety applications, bicycles, toys, sporting goods and advertising.

Remarkably different colour effects can be obtained by blending non-fluorescent toning pigments with fluorescent colours. The resulting bright, clean blends can be used for many accent colour paint applications. The amount of nonfluorescent pigment should not exceed 5-10% of the weight of fluorescent pigment.

Dispersion

Disperse with high-speed cavitation mixers. When dispersing Ix-AS, Ix-ASJ or IX-AD series, temperatures should not exceed 40°C. Systems containing a high proportion of toluene should not be subjected to temperatures exceeding 30°C.

Vehicle or Binder

A high clarity vehicle or binder system of a light colour and with good wetting properties will give the maximum brightness.

Extenders / Fillers

Non-opaque white extenders or fillers, such as calcium carbonate may be used in small quantities without serious effect on brightness or colour. Opacifiers are not normally recommended, but they can be added to produce pastel shades.



Lightfastness

Flamingo fluorescent pigments are stable to indoor light or conditions of outdoor light other than direct sunlight. They are changed by exposure to direct outdoor sunlight. The degree and effect of change is dependent on the colour and end usage.

The important factors affecting lightfastness are:

- Type of vehicle / binder
- The thickness of coating
- The pigment concentration

In general, the higher the pigment loading, the better the lightfastness.

To obtain maximum lightfastness, apply as thick coating as possible with the highest technically feasible level of pigmentation. Also apply a clear protective top coat incorporating a suitable UV absorber. The use of acrylic, certain two pack polyurethane and alkyd systems offer more UV protection than cellulose systems.

Where ever possible, outdoor exposure tests should be made on coating containing fluorescent pigments or colorants in order to be certain of satifactory light stability.

Accelerated testing, such as a Weatherometer, will give some indication of lightfastness, but there is no exact correlation between accelerated and outdoor weathering exposure.

Characteristics of	of Ix-AD/Ix-AS	& Ix-ASJ*
Chemical Nature	Thermoplastic am	inoplast
	base pigment	
	Ix-AD / Ix-AS	IX-ASJ
Bulk Density	0.25 - 0.29 gm/cc	0.22 - 0.26 gm/cc
Softening Point IX-AS/AD	130 - 140⁰C	135 - 145⁰C
Avg. Particle Size	3-4 microns	2-3 microns
Decomposition Point	210⁰C	
Oil Absorption Value	50-60 g/100g pigm	nent

General Description :

Ix-AS / Ix-AD / Ix-ASJ pigments are thermoplastic fluorescent pigments which are recommended for wide range of applications where resistance to strong solvent is not needed. They perform well in systems based on aliphatic and some aromatic hydrocarbons. They are also usable in aqueous systems where prolonged shelf-life is not required. These pigments can also be used for paper coatings, vinyl coated fabric, aqueous gravure inks, paints, screen inks, vinyl plastisols and organosols and plastics with melt temperatures less than 170°C.

Ix-AS series is much stronger compared to Ix-AD series.

Low Dusting Pigments

Generally, all our pigments are available with Low Dusting properties, which are specially treated to reduce dusting during handling.

Aqueous Dispersion - FFD

FFD series is Formaldehyde free aqueous based dispersion with very fine and narrow range of spherical particles, with improved light fastness compared to our lx/lxT/ST-911 series.

FFD series is available in three different particle sizes, hence they can be used in wide range of aqueous based applications like paint, ink, textile printing / dyeing, paper coating, marker, highlighter, stamping ink, etc.

Characteristics of A	queous Dispersion*-FFD
Chemical Nature	Styrene co-polymer
Solid content (%)	49 ± 2
Viscosity (Ford cup 4 mm)	15 - 35 sec
Particle Size range D-100	<2 microns
рН	7 - 8

* Typical Values

* Typical Values







Coatings



Introduction

Aron manufacture different variety of fluorescent pigments to meet the varying needs of coating formulators. Pigments of different colour strengths & properties are available.

Series selection depends primarily on the solvents used in the coatings formulations. The solvent types are water, aliphatic solvents, and strong solvents. Each solvent class may require the use of a different fluorescent pigment.

Flamingo fluorescent pigments are easily dispersible in all types of coatings formulations like aqueous & solvent based.

Colour Development

Fluorescent pigments are translucent. Maximum colour development can be obtained by using a relatively high concentration of pigment. Fluorescent brightness can be enhanced by using a white undercoat or other white surface.

Light Fastness

Flamingo fluorescent pigments are stable to indoor or conditions of outdoor light other than direct sunlight. They are changed by exposure to direct outdoor sunlight. The degree and effect of change is dependent on the color and end usage.

Lightfastness of a fluorescent coating formulation can be maximized by increasing the pigment concentration and adding an ultraviolet absorber. Thicker coats or multiple coats will also improve lightfastness and color development.

Strikingly different colour effects can be obtained by blending non-fluorescent toning pigments with fluorescent colour. As a general rule, the amount of non-fluorescent pigment should not exceed 5% of the weight of fluorescent pigment. Inter mixing of Fluorescent colours are also possible to achieve required colour shade.

Characteristics of IxT-310LF/311LF/350LF*

Chemical Nature	Thermoset type am	inoplast base pigment
	IxT-310LF/311LF	IxT-350LF
Bulk Density	0.35 - 0.40 gm/cc	0.32 - 0.36 gm/cc
Avg. Particle Size	4-5 microns	3-4 microns
Softening Point	Thermoset type	·
Decomposition Point**	250°C	
Oil Absorption Value	50-60 g/100g pigm	ent

General Description :

IxT-310LF are of normal colour strength pigments compared to IxT-311LF which are higher strength.

IxT-311LF are standard strength pigments, good in terms of heat stability, solvent stability, lightfastness & color migration property.

IxT-350LF are stronger shades and can be used were finer mesh products are recommended due to its fine particle size.

These pigments are designed to be used in formulations, inks and coatings, where strong solvents are used and where softening by heat and pressure may be a problem. They are also suitable for use in water based latex systems, where long term shelf stability is required.

** Maximum temperature at which fluorescence is maintained. Color degradation is time/temperature dependent.

* Typical Values



Paper Coating

The most widely used daylight fluorescent systems for paper coating are based on aqueous acrylic co-polymers and casein solutions applied by air-knife.

In practice, the process generally utilizes economical heavily filled coatings applied at between 7 and 12gm/m². At these low film weights the pigment has to provide maximum colour strength, therefore either Ix-AD or Ix-ASJ series is recommended. For stronger and darker shade Ix-AS can be used.

The main uses for fluorescent-coated papers are either for indoor displays or short-term outdoor advertising, and for these applications lightfastness is normally adequate with standard coating weights. Heavier coatings of 19gm/m² to 20gm/m² based on Ix-AD or Ix-ASJ series will provide increased lightfastness should this be required.

IX-ASJ series is comparatively stronger compared to IX-AD series and offers better storage stability.

Foaming

If excess foaming should occur it is recommended that a non-silicone based foam control agent be added, such as Bevaloid 691 (Rhodia Ltd).

Formulation

Binder : Acronal S320D (BASF) is a suitable binder combining light stability, flexibility and binding power. Binder levels vary depending on machine requirements but will usually be 25% to 30%.

Thickener : Small amounts of casein and acrylic or cellulose thickeners are added to give optimum performance and PH is normally adjusted to above PH9 with ammonia.

Wetting Agent : The addition of small amounts of wetting agent, such as Tamol NN8906 (BASF) or Polysalt CA (BASF) is very effective for producing an aqueous paste of Flamingo pigments using a highspeed stirrer.

Lubricants : For optimum surface smoothness and easy calendaring, a stearate type surface lubricant may be used.

Formaldehyde Free Pigments

As more and more customers are now looking at formaldehyde free products for paper coating, we have following series.

Characteristics of FF-611*

Bulk Density	0.25 - 0.35 gm/cc
Average Particle Size	3-4 microns
Softening Point	-
Melting Point	145 - 155 ⁰C
Min. Processing Temp.	175 °C
Decomposition Point** (Heat degradation is time/temp. dependent)	290°C
Chemical Nature	Formaldehyde free thermoplastic polyamide

General Description :

FF-611 is a formaldehyde free thermoplastic polyamide base fluorescent pigment with fine particles. Recommended for various water based applications where formaldehyde free and high thermal stability are major criterias.

** Maximum temperature at which fluorescence is maintained. Color degradation is time/temperature dependent. * Typical Values

Aqueous Dispersion - FFD

This newly developed aqueous dispersion can be used for paper coating and pulp dyeing.

Characteristics of A	queous Dispersion-FFD*
Chemical Nature	Styrene co-polymer
Solid content (%)	49±2
Viscosity (Ford cup 4 mm)	15 - 35 sec
Particle Size range D-100	<2 microns
рН	7 - 8

Following are the advantages of using our dispersions

- Formaldehyde free
- Improved lightfastness
- Non dusting & environment friendly
- Faster & Better dispersion
- Uniform & Smooth finish coating
- High gloss coating

PVC Spread Coating



Introduction

Flamingo ST-911 series is especially recommended for PVC spread coating applications, offering excellent bleed and migration resistance when used with plasticisers and solvents.

IxT-310LF and IxT-311LF/350LF series may also be used depends upon the performance required from the end product.

If bleed and migration are not a problem, Ix-AD or Ix-ASJ series are also viable options.

Stabilisers

The correct choice of heat and light stabilizers is very important. Stabilisers used in the plastisol system must first be checked to establish their compatibility with Flamingo pigments. Organic Zinc or tin stabilizers give the brightest results and improved lightfastness in certain applications.

If calendaring is not involved, Flamingo FF-611 series offers high colour strength, good lightfastness and the complete absence of formaldehyde. The lower levels of pigmentation possible with this series may provide acceptable bleed resistance. Where bleed resistance is the most important criteria, then ST-911 series is recommended.

Guidelines

A White base coat followed by the fluorescent coating gives the best results. Although the pigments may be insoluble in a certain solvent and plasticizer system, it is possible for migration or colour bleed to occur. This is more noticeable with pink and magenta shades. Full laboratory trials must be conducted with the proposed system prior to manufacture. Pre-production testing is particularly important where polyurethane-based coatings are planned.

Cha	aracteristics of ST-911 & FF	-611 *
	ST-911	FF-611
Bulk Density	0.33 - 0.38 gm/cc	0.25 - 0.35 gm/cc
Average Particle Size	3-4 microns	3-4 microns
Softening Point	Thermoset	-
Melting Point	Non-melting	145 - 155 °C
Min. Processing Temp.	Non-melting	175 °C
Decomposition Point** (Heat degradation is time/temp. dependent)	260°C	290°C
Chemical Nature	Benzoguanamine Formaldehyde Co-polymer	Formaldehyde free thermoplastic polyamide

General Description :

ST-911 series is a thermoset pigment with unique spherical particles. These pigments are developed to virtually eliminate colour migration and are recommended for flexible vinyl, vinyl plastisol, and organisol applications. This product's non-migrational properties makes it well suited for these highly plastisized applications. Because of its thermoset nature, ST-911 series does not cause buildup on calendering or two roll mill equipment and exhibits a low degree of plateout.

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* Typical Values ** Maximum temperature at which fluorescence is maintained.





Seed Coating

Flamingo Daylight Fluorescent pigments may be

used for coating pelletised sugar beet and other

vegetable seeds. The seeds are tumbled during

processing which binds the pigment to the moist

nitrogen rich nutrient layer. Simple sieving controls

the thickness. The moisture prompts a partial

germination that is then arrested, so that

The extra visibility of fluorescent coated seeds

ensures greater efficiency during sowing, and

colour coding usually indicates either the seed

processor or the content of the nutrient layer. Highly responsive fluorescent pigments are

suitable where fluorescent counting devices are

inuse. Flamingo colours are ideal for this

application due to their high visibility, their chemical

inertness in wet ground conditions and the virtual

Clay Products Coating

We at Aron have wide experience in offering

products for clay product coatings. This can be brush or spray coatings. We have specialized products which offer high visibility when sprayed

or coated on shotgun targets (clay pigeons).

absence of heavy metals.

subsequent planting will give a higher yield.

Crayons can be produced, based on Flamingo daylight fluorescent pigments, which are much in demand by children for their attractive bright colours. Flamingo pigments comply with the relevant health and safety requirements for heavy metal content and toxicity ratings.

Crayons

Modelling Wax

For similar reasons to those given for crayons, Flamingo daylight fluorescent colours are found popular by end users.

Crop and Animal Marking

Flamingo fluorescent colours are used for enhanced visibility in daylight or UV light, either at ground level or from the air.

Air Filtration Control

Aron offers Yellow colorants specially formulated for detection of leaks in bag house air filtration units.

APPLICATIONS			SEF	RIES		
	Ix- AS / Ix-ASJ Ix- AD	lxT-310/ 310LF	IxT-311/ 311LF/ 350LF	HTPB-511 P / AQ / AVM	FF-611	ST-911
Hair and Body Spray		\checkmark	•			•
Hair Gel	✓	•		•	•	
Hair Streaker		\checkmark	•		•	•
Nail Varnish (Opaque)		\checkmark	•		•	•
Nail Varnish (Translucent)	✓			✓	\checkmark	
✓ Series Recommended	• May be us	sed for sele	cted applicati	ons		

Fluorescent Cosmetics (Not requiring FDA approved ingredients)

Note: Flamingo colours may be used in some cosmetics applications as indicated above, but note that it is cosmetics manufacturers' responsibility to ensure that their products comply with the relevant Health & Safety regulations



SERIES RECOMMENDED



APPLICATION			S	ERIES			
	Ix-AS / ASJ / AD	lxT-310/311	lxT-310LF/ 311LF / 350LF	HTPB-511 P / AQ / AVM	FF-611	ST-911	FFD
PAPER COATING							
Aqueous based	\checkmark				\checkmark		\checkmark
Solvent based		\checkmark	\checkmark				
PAINTS							
Aqueous / Latex	\checkmark	•	\checkmark		٠	\checkmark	\checkmark
Aliphatic & Aromatic Solvents	✓	\checkmark	✓		٠	✓	
Cellulose		•	✓			✓	\checkmark
Rubber	✓	•	✓			•	\checkmark
Water Colours	✓	٠	•		•	✓	
Aerosols		•	✓			✓	\checkmark
PVC							
Calendered Fabrics		•	✓			•	
Spread Coated Fabrics		•	\checkmark	\checkmark		•	
MISCELLANEOUS							
Clay Coating	\checkmark				\checkmark		
Seed Coating	\checkmark	\checkmark	\checkmark			\checkmark	\checkmark
Tracers	\checkmark	•	\checkmark				\checkmark
Crop & Animal Markings	\checkmark	•	•				
Crayons	\checkmark				\checkmark	•	
Modelling Wax	\checkmark	•	•		\checkmark	•	
Candles	\checkmark	•	•	•			
Cosmeitcs	Please	e refer applic	ation Vs serie	es for Fluores	cent Cosmet	tics in page 9	

✓ Series Recommended

• May be used for selected applications

Regulatory Information

Flamingo fluorescent IX / IxT / HTPB series have been approved for European Norms EN-71 part III-2000 for heavy metals.

Our IX / IxT / HTPB series are pre-approved in accordance with ASTM-D 4236 guidelines for Art & Creative materials.

Flamingo fluorescent IxT series has INCI references assigned to them, but as these are not in included CTFA positive list, hence they are not automatically approved for use in cosmetics. There fore, users must test the product and ensure that its suitable and complies with local regulations.

Our HTPB series is in compliance and conforms to Resolution AP-89(1) guidelines, for use of colourants in plastics coming into contact with food.

FDA Approval

Like all fluorescent pigments, Aron products cannot be used as food additive and do not currently have any approvals with the American Food and Drug Administration (FDA).

Custom Colours

When specialized application requires specific pigments or colour requirements Aron welcomes your inquiry. Custom colours are developed based on our know-how and supported by our technical and manufacturing groups. Our custom products are produced and controlled to the quality standards you specify.

Also please contact us for any technical support, related to our product applications.

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Flamingo Fluorescent Colours **Available Colours**

	lx			IxT			НТРВ					
SHADE	Ix-AS	Ix-ASJ	Ix-AD	310LF	311LF	3 50LF	511P	51 1AVM	511AQ	ST911	FFD	FF-61
Yellow 01	~											
Yellow 11	~	~	~	~	~	~	~	~	~	~	\checkmark	~
Green 02	~											
Green 12	~	~	~	~	~	~	~	~	~	~	\checkmark	~
Chrome 03	~											
Chrome 13	~	~	~	~	~		~	~	~	~		~
Orange 04	~											
Orange 14	~	~	~	~	~	~	\checkmark	~	~	\checkmark	\checkmark	~
Red Orange 05												
Red Orange 15	~	~	~	~	~	~	\checkmark	~	~	~		~
Red 06												
Red 16	~	~	~	~	~	~	~	~	~	~	\checkmark	~
Pink 07	~		~				\checkmark					
Pink 17	~	\checkmark	\checkmark	~	~	\checkmark	\checkmark	\checkmark	~	\checkmark	\checkmark	~
Magenta 08	~											
Magenta 18	~	~		\checkmark	\checkmark	~	\checkmark	\checkmark		\checkmark	\checkmark	~
Violet 09												
Violet 19	~	~		\checkmark	\checkmark	~				\checkmark	\checkmark	~
Blue 10												
Blue 20	✓	\checkmark		\checkmark	\checkmark	✓	\checkmark	\checkmark	✓	\checkmark	\checkmark	~

✓ Colours Available











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