

Technical Data Sheet

A AND AX Pigments

General description

DayGlo® A-Series and AX-Series pigments are thermoplastic, fluorescent pigments recommended for a wide range of applications where resistance to strong solvents is not needed. A-Series pigments provide the brightest fluorescent color available, while AX-Series pigments are much stronger in comparison.

They perform well in a system based on aliphatic and some aromatic hydrocarbons. They're also usable in water systems where prolonged shelf life is not required.

Applications

- Paper coating
- Vinyl coated fabric
- A-type gravure inks
- Paints
- Screen inks
- Vinyl Plastisols and organisol
- Plastics with melt temp less than 380°F (193°C)

Available Colors

A	AX	Color Name
A-11	AX-11-5	Aurora Pink
--	AX-12-5	Neon Red
A-13-N	AX-13-5	Rocket Red
A-14-N	AX-14-N	Fire Orange
A-15-N	AX-15-N	Blaze Orange
--	AX-16-N	Arc Yellow
A-17-N	AX-17-N	Saturn Yellow
A-18-N	AX-18-N	Signal Green
A-19	--	Horizon Blue
A-21	AX-21	Corona Magenta

Packaging:

1 box = 55lb (25kg)

Storage & shelf life:

120 months when kept in closed original packaging in a dry place at ambient temperature.

Safety & regulatory:

Safety Data Sheet available on request.

Physical properties

Delivery form	Powder
Specific gravity	1.36 g/ml
Average particle size	4.5-5.0 µm
Softening point	110°C Minimum
Decomposition point	195°C
Oil absorption	47g/100g Pigment

Disclaimer: Our technical advice, information, statements, whether given verbally, in writing, or in the form of test results, is offered for your guidance without warranty. No warranty for fitness for a particular purpose is made. This also applies where protective rights of third parties are involved. It does not release the user from obligation to test the suitability of the products and formulas for the intended process and applications. Our guarantee is limited to the consistent quality of our product.

Solubility

The A-Series and AX-Series pigments show the following typical solubilities in the listed solvents and plasticizers:

Alcohols		Plasticizers	
Ethyl Alcohol	PS	Butyl Benzyl Phthalate	PS
3-Heptanol	NS	Dibutyl Phthalate	PS
Isopropyl Alcohol	NS	Diocetyl Adipate	NS
Methyl Alcohol	PS	Diocetyl Phthalate	NS
Tetrahydrofurfuryl Alcohol	S	Diocetyl Sebacate	NS
Glycols		Ketones	
Diethylene Glycol	PS	Acetone	S
Ethylene Glycol	NS	Cyclohexanone	S
Glycerine	NS	Diisobutyl Ketone	NS
Hexylene Glycol	NS	Ethyl Amyl Ketone	NS
Propylene Glycol	NS	Isophorone	S
		Methyl Isobutyl Ketone	S
Esters		Halogenated Solvents	
Butyl Acetate	PS	Methylene Chloride	S
DPM Acetate	PS	Tetrachloroethylene	PS
Ethyl Acetate	S	Trichloroethylene	PS
Isoamyl Acetate	NS	Aromatics	
Isopropyl Acetate	PS	Toluene	NS
PM Acetate	S	Xylene	NS
Glycol-Ether		Aliphatics	
Butyl Ether	PS	Heptane	NS
Ethyl Ether	S	Lactol Spirits	NS
Isobutyl	PS	Mineral Spirits	NS
Methyl Carbitol	S	VM&P Naptha	NS
Methyl Ether	S		

Key: NS = Not Soluble PS = Partly Soluble S = Soluble

NOTE: The above information is offered as a recommendation only. The suitability of DayGlo A-Series and AX-Series pigments should be determined by evaluation in your specific application.

Lightfastness

The higher the pigment concentration, the better the lightfastness. Plasticizers, stabilizers and other additives can influence the lightfastness of fluorescent pigment. The following table gives the recommended percentage of pigment for optimum color and light stability with respect to film thickness:

Wet Film Thickness	% Pigment
3-5 (75-125 Microns)	20-35
10 (250 Microns)	10-20
20 (500 Microns)	7-15
40 (1,000 Microns) and over	2-8

Toxicological data

The A-Series and AX-Series pigments have been approved through Duke University for the ACMI certification program. Both are essentially non-toxic and contain no constituent heavy metals or inorganic phosphors. Toxicity on typical A-Series and AX-Series pigment samples has yielded the following results:

Acute Oral Toxicity LD ₅₀ g/kg	>16.0
Acute Dermal Toxicity LD ₅₀ g/kg	>23.0
Acute Dust Inhalation LC ₅₀ mg/L Air (4 Hours)	>4.4
Eye Irritation	No Significant Irritation