

Technical Data Sheet

T/GT Pigments

General description

DayGlo T/GT pigments are thermoset, fluorescent pigments ideal for applications where solvent resistance is needed.

GT pigments have higher color strength than T pigments but are based on the same thermoset resin matrix. All are insoluble in a greater number of solvents than our DayGlo A/AX thermoplastic pigments.

DayGlo T/GT pigments are designed to be used in formulations and coatings where strong solvents are used and where softening by heat and pressure may be a problem. They're also suitable for use in water-based latex systems where long-term shelf stability is required.

Applications

- Paints
- Aerosol
- Screen Inks
- Solvent-based and water-based coatings
- Safety and high-visibility apparel

Available Colors

T	GT	Color Name
T-11	GT-11	Aurora Pink
T-13	GT-13	Rocket Red
T-14	GT-14-N	Fire Orange
T-15	GT-15-N	Blaze Orange
T-16	---	Arc Yellow
T-17-N	GT-17-N	Saturn Yellow
T-18-N	---	Signal green
T-19	---	Horizon Blue
---	GT-21	Corona Magenta

Packaging:

1 box = 55lb (21kg)

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	1.37 g/ml
Hegman grind	5.0 Minimum
Average particle size	4.0-5.0 µm
Decomposition point	195°C
Oil absorption	51g/100g Pigment
Bulking value	0.0875 gal/lb

Solubility

The T-Series and GT-Series pigments show the following typical solubilities in the listed solvents and plasticizers:

AQUEOUS	KETONES
Water	Acetone
ALIPHATICS	Cyclohexanone
Heptane	Diacetone Alcohol
Lactol Spirits	Diisobutyl Ketone
Mineral Spirits	Ethyl Amyl Ketone
VM & P Naphtha	Isophorone
AROMATICS	Methyl Ethyl Ketone
Toluene	Methyl Isobutyl Ketone
SC #100 (KB Value 91)	HALOGENATED & MISC.
SC #3 (KB Value 72)	Carbon Disulfide
Xylene	Carbon Tetrachloride
ALCOHOLS	Trichloroethylene
Ethyl Alcohol	PLASTICIZERS
3-Heptanol	Diethyl Adipate
Isobutyl Alcohol	Diethyl Phthalate
Isopropyl Alcohol (99%)	Diethyl Sebacate
Methyl Alcohol	Paraplex G-50
GLYCOLS	Paraplex G-62
Diethylene Glycol	ESTERS
Ethylene Glycol	Butyl Acetate
Glycerine	DPM Acetate
Hexylene Glycol	Ethyl Acetate
Propylene Glycol	Isoamyl Acetate
	Isopropyl Acetate
	N-Propyl Acetate
	PM Acetate

NOTE: The above information is offered as a recommendation only. The suitability of DayGlo T-Series and GT-Series pigments should be determined by evaluation in your specific application. Mixtures of some solvents may have a more severe effect on T/GT pigments than the individual solvents alone. An example of such a mixture is equal parts of methyl ethyl ketone and ethyl acetate. This mixture, will partially solvate the pigments producing some bleed and swelling of the pigment. Each solvent alone will not.

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.

Processing

General Solubility

Insoluble in water, hydrocarbons and many common solvents

Pigments are insoluble and need to be dispersed (easily stir-in).

(1) Test methods and Certificate of Analysis (COA) available on request.

Usage

T/GT pigments are organic and in most cases, easily wet out and disperse in solvent-based vehicles or liquid resins by intensive stirring (Cowles Dissolver). Formulations produced by such means give Hegman Gauge readings of 4.5 to 5.0 for application by spray, brush and roll, or knife coating. If finer particle sizes are required, T/GT pigments can be wet ground in suitable formulations by wet milling.

The fact that T/GT pigments are based on a thermoset resin permits them to be used in various coatings or inks made with nitrocellulose, polyvinyl chloride-acetate, polyamide, acrylic, chlorinated rubber and other resins which require strong oxygenated types of solvents such as aromatics, alcohols, esters or ketones. Combinations of these solvents should be evaluated before use.

Color bleed may be a problem in some instances, usually with the red colors. It can occur even though the pigment resin matrix is thermoset and insoluble, and the fluorescent dye is in solid solution throughout the pigment particles and not merely absorbed on the surface. Some solvents leach enough dye from the insoluble particles so that color transfer may be noticeable when the coating surface involved contains significant amounts of plasticizers.

T/GT pigments are suitable for paper coating applications, either solvent or water latex based. Since the pigments are not softened by heat or pressure, the coated paper can be calendared without glazing or sticking to the rolls.