

MANGALAMGLOW FLUORESCENT PIGMENT USES AND SPECIFICATIONS

Colour certainly increases the beauty, realism and decorative value. It quickly attracts the attention of the observer especially when fluorescent colors are used. Colour that we perceive is necessarily the stimulation of our visual sensory organs by the selectively reflected portion of day-light received from an object. The incident light is partially reflected and partially absorbed by normal conventional pigments, the absorbed portion being dissipated as heat. But fluorescent pigments have peculiar property of reflecting some portion of light and transforming the absorbed portion of light and U.V. Radiation in to emitted visible light of the same colour, thus adding extra reflected light to the colour, which appears extra ordinarily bright, glowing and fluorescent. This phenomenon is called dayglow fluorescence and the pigments are called as day-light fluorescent pigments. Mangalamglow fluorescent pigments are day-light fluorescent pigments and are recommended for various applications.

Below are the Mangalamglow Fluorescent Pigments:

- **8000 series** are versatile and superior to all other our products in fluorescence, tinting strength and brightness. They are recommended for export and for superior quality works.
- **6000 Series:** - Recommended for Textile Printing, Dyeing, Poster Colours, Paper Coating, Paints, Wool Dyeing and Safety Marking Signs.
- **5000 Series:** - Recommended for Plastics, Printing Inks, Rubber and Candles.
- **2000 Series:** - (S-1,S-2 & Cheaper Grades):- Recommended for Sindoor colors.
- **1000 Series:** - (M-1 & M-2 Grades) Recommended for Murti Painting or Earthen Toys Painting.

Textile Printing

Due to microfine particle size of Mangalamglow Fluorescent Pigments, they are very easily dispersible in textile binder with the help of high speed stirrer. They can be used in kerosene binder printing paste as well as discharge style printing paste. Suitable emulsifiers and catalysts will improve the stability of printing pastes. It is advisable to use freshly prepared printing pastes as the shelf life of the paste is limited. Mangalamglow Fluorescent Pigments are stable during the process of polymerization and finishing and offer excellent brilliant fluorescent prints. For excellent results alkaline conditions must be avoided during process of printing and finishing and pH of printing binder paste should be 5 to 6. For manual screen printing 8 to 10 % prints and for machine print 13-15 % print will give suitable results. Due to striking fluorescence and Eye- Catching – Magic, Mangalamglow Fluorescent Pigments are ideal for use in advertising field as decorative colors and in visual identification devices.

Recipe for kerosene binder paste for printing Mangalamglow Fluorescent Pigments		Recipe for 10 % print	
Textile Binder (SLN)	10 kgs.	Kerosene binder stock paste	86 kgs.
Water	10 kgs.	Fluorescent Pigment	10 kgs.
Urea	05 kgs.	Catalyst (Di Ammonium Phosphate)	02 kgs.
Kerosene	75 kgs.	CCL Fixer.	02 kgs.
Kerosene Binder Stock Paste 100 kgs		100 kgs.	

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Recipe for dyeing of Mangalamglow Fluorescent Pigments	
SLN Binder	06.000 kgs.
Pidilite T.K.F (Substitute for kerosene)	02.750 kgs.
CCL Fixer	00.200 kgs.
Water	91.050 kgs.
Stock paste for dyeing Fluorescent Pigments 100.000 kgs.	
Recipe For Dyeing	
Stock Paste for Dyeing Fl Pigments.	25.000 kgs.
2 kgs Fl. Pigments + 2 kgs SLN Binder	04.000 kgs.
Water	71.000 kgs.
2 % Fluorescent Dyeing Paste	100.000 kgs.

Inks

Important instructions for using Mangalamglow Fluorescent Pigments in making printing inks.

- 1) Heavy impact grinding methods like triple roll grinding, ball milling, sand milling, attritoring etc must be avoided, as these methods tend to deteriorate the fluorescence and brightness.
- 2) Homogeneous dispersion in liquid medium can be very easily obtained by stirring with high speed stirrer using right type of consistency and suitable emulsifiers. Due to very fine particle size of these pigments, they offer greater ease of dispersion. Here also heat generation during the process of stirring should be avoided. Solvent resistance mentioned under should be considered

Solvent Resistance (Bleeding In Solvents)

Solvent	Rating	Solvent	Rating
Water	3	Kerosene	3
White Spirit	3	Xylene	3
Toluene	3	D.O.P.(Di-Octyl-Phthalate)	3
N-Hexane	3	Linseed Oil	3
Naphtha	3	Methyl Cellosolve	1
Cellosolve	1	Methanol	2
I.P.A.(Iso-Propyl-Alcohol)	2	N-Butanol	1
Acetone	1	M.I.B.K (Methyl Iso Butyl Ketone)	2
Ethyl Acetate	2	AMYL Acetate	2
Cyclohexanone	1	Dibutyl Phthalate	2 or 3
Isophorone	1		
-: RATING :-			
1 – Considerable 2 – Partly or Slight 3 - None			

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PLASTICS

Mangalamglow Fluorescent Pigments of 5000 series are recommended for use in Plastic Manufacture. They are easy for use in low melting plastic up to 140°C to 150°C. They can be used for higher melting plastic like polypropylene in the range of 180°C to 200°C, employing the shortest possible time of heat exposure and suitable catalysts. For Normal Mould Plastic the homogeneity is very nice. In case of use by extrusion method, it is always advisable to disperse the pigment uniformly with granules. Use of suitable plasticizers may help the uniform dispersion in plastic resin.

PAPER COATING

Recently the trend of using fluorescent coated papers has been increasing very rapidly in advertising and packaging industries. We have developed specially these 6000 series of pigments for paper coating. These are brighter micro fine pigments, which give better coverage.

SPECIFICATIONS

Decomposition point temperature	195°C to 200°C.
Softening point	120°C to 130°C
Average particle size	3 to 5 microns No residue on 400 mesh I.S. Test sieve
Bulk Density	0.31 to 0.40 gms/cc
Free formaldehyde	Below detectable limit
Refractive Index	1.6
Specific Gravity	0.225 to 0.295
Dispersibility	Due to micro fine particle size Mangalamglow Fluorescent Pigments can be easily dispersed with high speed dispersion equipment.
Oil Absorption	50 to 60 gms. Of oil per 100 gms. of pigment

(The information given above is in good faith but without guarantee)

For further details, please contact :-

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