



EMD
PERFORMANCE
MATERIALS

⋮ biflair®

instant
LUXURY

Biflair® pearlescent
effect pigments



brilliance SHARP ness

biflair®

Creating lustre with unsurpassed brilliance, sharpness and depth is easy with the unique Biflair® portfolio. These high-tech effect pigments are manufactured under precise precipitation conditions to deliver unique BiOCl crystal platelets that have a defined symmetrical square or octagonal shape and narrow particle size distribution.

The extensive range of Biflair® pigments can be used to create a “liquid metal” effect that is textureless and has high reflectivity. Due to the high aspect ratio and particle size of the BiOCl crystals, Biflair® effect pigments do not generate sparkle but deliver a smooth, continuous finish that can be used in a variety of products.

KEY FEATURES

- Neutral silver white
- Non-leafing pigment
- Will not tarnish
- Defined crystals result in smoother finish application
- Tinting flexibility expands color palette
- Dispersion for easy handling and non-dusting
- Extremely narrow particle size distribution
- Liquid metal effect that is smooth and lustrous
- Meets garment industry guidelines

The Biflair® family consists of products for many applications

See page 7 for more information.

PRINTING	Biflair® 66A
	Biflair® 83S
	Biflair® 83
	Biflair® 89
RESIN	Biflair® 88 NXT
	Biflair® 84
	Biflair® L-100
	Biflair® L-200

Biflair® 81

POWDER PIGMENT

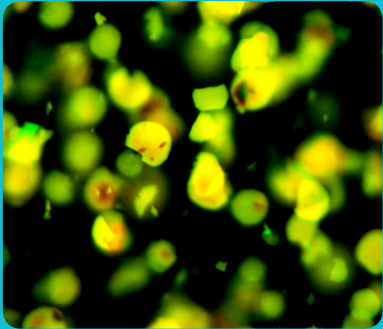
Biflair® 89



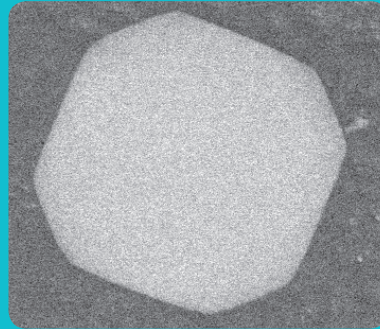
Achieve rich brilliance,
sharpness and depth easily
with the

biflair® portfolio

Bismuth Oxychloride Crystals

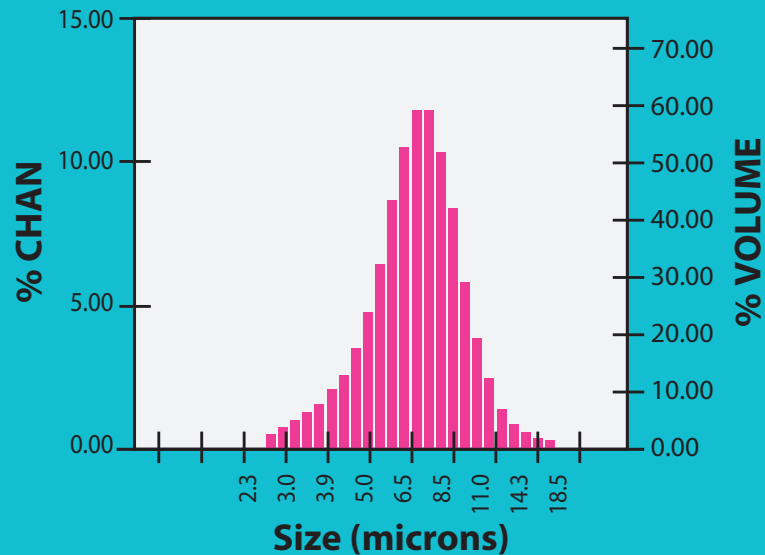


The smooth pigment crystals reflect more light and scatter less. Such pigments more closely simulate metallic effects than do traditional mica pigments.



View of a single platelet (5000x) shows the shape is octagonal which helps reduce corner breakage.

Particle Size Distribution High Luster Lacquer Dispersions



Extremely narrow particle size distribution (typically 8-11 μ) and very thin platelets eliminates light scattering and provides high lustre liquid metal appearance.



how to DISPERSE



Regarding the dispersion of Biflair® 81 powder pigment we recommend to contact our technical department

PASTE

PRINTING

Formulation and Application Guideline

Gravure & Flexo:

- Biflair® inks can be applied with any type of anilox roller or gravure cylinder.
- Cell size and Biflair® particle size must be closely matched before printing; carefully stir Biflair® printing ink with low shear to prepare a sediment-free ink.
- Strongest effect can be achieved with over printing on smooth substrate
- Under-printing with strong colorants helps to achieve additional creative effects
- Don't use more than 20% colorant with Biflair® products
- Pigment loading - between 20-40% as supplied

SOLVENT

Agitate to fully suspend any settled pigment. The unagitated pail which has been shipped and stored will have settled, leaving a crystal-deficient sediment under pale tan to brown colored vehicle-rich top layer. The crystal must be resuspended to allow full homogeneity so that any withdrawn portions are representative mixtures.

A propeller type impeller shape driven on a vertically suspended axis coincident axis of the pail, is suitable. The impeller of 10 ± 1 cm diameter, should be about 15 ± 5 cm from the bottom of the pail and stirred at 1000 ± 2000 rpm. The pail should be mixed for about 5-15 minutes, depending on concentration and viscosity. Runny mixtures should be mixed longer while viscous mixtures high in BiOCl concentrations should be mixed more briefly. Do not over mix, otherwise the crystals may become fractured and hence lose pearlescent performance.

COATINGS

Formulation and Application Guideline

Biflair® can be mixed with organic pigments, tint-based systems or dyes to produce almost any desired color.

Different effects can be achieved with Biflair

- Biflair® and colorants are mixed together for a one-coat system, producing light to medium dark colors
- Biflair® is sprayed then colorants sprayed on top or if the colorant is sprayed first, then next layer is Biflair, a darker, more chromatic color is produced
- Liquid metal effect can be achieved with multiple layers low solids coatings applications
- Biflair® is not suitable for long term UV exposure applications (e.g. full time exterior applications)



Due to the high aspect ratio and particle size of the BiOCl crystals, Biflair® effect pigments do not generate sparkle but deliver a smooth, continuous finish that can be used in a variety of products, including:

- Phones, computers and other electronics
- Athletic and sporting goods
- Printing with a distinctive appearance
- Embellishments, buttons, beads, costume jewelry
- Indoor furniture
- Small appliances
- Luxurious packaging





Available Biflair® products

Product	Resin vehicle	Applications	End uses	Crystal Content (%)	Particle size (μ)
Biflair® 66A	Alkyd	Conventional offset inks	High quality pearlescent commercial printing	70	< 20μm
Biflair® 81	None	Water-borne, Solvent-borne and UV Inks and Coatings	Teletronics, sports goods, wallpapers, packaging and over/under print varnishes	100	< 45μm
Biflair® 83S	Acrylic	Water-borne Inks and Coatings	Wallpapers, packaging and over/under print varnishes	50	< 25μm
Biflair® 83	Acrylic	Water-borne Inks and Coatings	Wallpapers, packaging and over/under print varnishes	60	< 25μm
Biflair® 84	Acrylic	Solvent-borne Inks and Coatings	Teletronics, sports goods	55	< 25μm
Biflair® 88 NXT*	Alkyd	Casting and Gel Coats	Buttons, bowling balls	30	< 25μm
Biflair® 89**	Nitrocellulose	Solvent-borne Inks and Coatings	Packaging & labels	55	< 25μm
Biflair® L-100	Nitrocellulose	Solvent-borne Inks and Coatings	Pearl dipping	25	< 25μm
Biflair® L-200	Nitrocellulose	Solvent-borne Inks and Coatings	Pearl dipping	45	< 25μm

* Ethyl Benzene free

**Butyl acetate free

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