

Water-based Colorants for Paper

▶ Application

Colorants for printing paper, white paperboard, cast-coated paper, wallpaper, origami, (colored paper for folding), paper file, conductive paper, light shielding paper, etc.

▶ Characteristics

- A colorant for paper coating containing water-based pigment dispersion with stable and fine particles
- Including exclusive products for bluing as well as general purpose products
- Selectable between anionic and nonionic types according to the kind of base paper and coating liquid
- Excellent in dispersion stability and compatibility with binders
- Capable of performing color matching and color mixing between products as desired
- Free from oil spots on the coating film
- Excellent in water-resistance, heat-resistance and light-fastness of colored coating film

▶ Representative Products

Type	Product name	Pigment used	Heat-resistance	Light-fastness
Anion	416 Yellow	Disazo-yellow	5	3
	906 Yellow	Disazo-yellow	5	3
	307 Red	Naphthol AS-red	5	3
	516 Green	Chlorinated copper phthalocyanine	5	8
	536 Blue	Copper phthalocyanine (α)	5	7-8
	556 Blue	Copper phthalocyanine (α)	5	7-8
	708 Blue	Copper phthalocyanine (β)	5	8
	1516 Violet	Dioxazine	5	7
	1731 Black(J)	Carbon black	5	8
	506 Orange	Pyrazolone	5	3
Anion Nonion	1525 Blue G	Copper phthalocyanine (α)	5	7-8
	2505 Violet 3R	Dioxazine	5	7
Nonion	500 Yellow R	Disazo-yellow	5	3
	910 Yellow FR	Disazo-yellow	5	5
	720 Red 2B	Naphthol AS-red	5	5
	1100 Red FG-N	Condensed azo	5	5-6
	510 Green B	Chlorinated copper phthalocyanine	5	8
	520 Blue 2B	Copper phthalocyanine (α)	5	7-8
	700 Blue GA	Copper phthalocyanine (β)	5	8
	1500 Violet 3RN	Dioxazine	5	7
	510 Black TR	Carbon black	5	8

*1) Heat-resistance test : Evaluate the discoloration by 5 ratings after heating the colored base paper at 150°C for 10min, with hot air dryer.

*2) Light-fastness test : Use "fade-O-meter" and evaluate the discoloration by 8 ratings after 120 hours light exposure.

*Above is our internal experimental data. It is not guaranteed.

▶ Application

Colorants for base paper for decorative board, colored base paper applied to wallpaper, washing-resistant paper, fruit growing paper, paper for fresh fruit, automobile tire wrapping paper, insulating paper, conductive paper, etc.

▶ Characteristics

- A colorant for papermaking, containing pigment with fine and stable particles dispersed in water by using low-foaming surfactant
- Capable of being mixed easily in a Beater machine because of the water dispersed pigment with uniform micronized particles
- Excellent in pigment yield because of low-foaming tendency during papermaking process
- Excellent in dispersion stability
- Capable of performing color matching and color mixing between products as desired
- Excellent in heat-resistance, light-fastness and chemical-resistance

▶ Representative Products

Product name	Pigment used	Solvent-resistance*1)		Heat-resistance	Light-fastness
		methanol	MEK		
1837 Yellow	Monoazo-yellow	4-5	3	5	3
1957 Yellow	Disazo-yellow	5	4	5	5
1387 Red(J)	Naphthol AS-red	4	2	4	5
1534 Blue(J)	Copper phthalocyanine (α)	5	5	5	7-8
1737 Blue	Copper phthalocyanine (β)	5	5	5	8
3636 Violet(J)	Dioxazine	5	5	5	7
1731 Black(J)	Carbon black	5	5	5	8
1056 Yellow	Yellow iron oxide	5	5	5	8

Evaluation of solvent-resistance, chemical-resistance and heat-resistance

Grade 5 : Discoloration (color contamination) is not recognized.

Grade 4 : Discoloration (color contamination) is slightly recognized.

Grade 3 : Discoloration (color contamination) is somewhat recognized.

Grade 2 : Discoloration (color contamination) is remarkably recognized.

Grade 1 : Discoloration (color contamination) is considerably recognized.

Evaluation of light-fastness

Grade 8 : Discoloration is not recognized.

Grade 1 : Completely decolorated

*1) Solvent-resistance test : Evaluate the discoloration of the colored base paper and the color contamination of the solvent by 5 ratings after soaking 1cm² colored base paper into 2ml solvent.

*2) Heat-resistance test : Evaluate the discoloration by 5 ratings after heating the colored base paper at 150°C for 10min, with hot air dryer.

*3) Light-fastness test : Use "fade-O-meter" and evaluate the discoloration by 8 ratings after 120 hours light exposure.

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