



MATSUI INTERNATIONAL CO. INC.

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PHOTOPIA® CONCENTRATES Polyethylene (PE) & Polypropylene (PP)

Summary:

Photopia® Conc is non-capsule type Master Batch Pellet which is compounded with light susceptible color change colorant (Photochromism) directly into Polypropylene/Polyethylene in high concentration. When diluted with optional PP/PE resin for moldings, they exhibit color intensely under strong sunlight or ultraviolet radiation, whereas they restore to their original color in the dark and these reversible changes can be repeated again and again.

1. Components:

Polypropylene/Polyethylene	95 ± 1
Oxazine Group Colorant, General Colorant Stabilizer, etc.	5 ± 1
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Total	100 (weight%)

2. Physical Characteristics:

(Nature): Transparent pellet form in each color
(Specific Gravity): Approximately 0.91 – 0.95
(MFI): Approximately 9g/10 min

3. Kinds of Color: Standard Color14 colors

10 % Photopia PP Conc / Natural PP Resin
(Hue examples when SHOAROMER MG-471 (Showa Denko Co.) is used as natural PP resin.)

C/# Yellow-Brown (YBR)	-301D	PMS 388C	to	PMS 153C
C/# Pink-Magenta (PM)	-302D	PMS 212C	to	PMS 227C
C/# Blue-Violet (BV)	-303D	PMS 2985C	to	PMS 526C
C/# White-Purple (WPL)	-304D	Colorless	to	PMS 247C
C/# Orange-Red (OR)	-305D	PMS 163C	to	PMS 187C
C/# Green to Olive (GOL)	-306D	PMS 354C	to	PMS 560C
C/# White-Yellow (WY)	-313D	Colorless	to	PMS 122C
C/# Pink-Orange (PO)	-314D	PMS 231C 1/2	to	PMS 177C
C/# Blue-Green (BG)	-315D	PMS 305C	to	PMS 359C
C/# Pink-Brown (PB)	-316D	PMS 528C 1/2	to	PMS 500C

C/# Light Yellow-Blue (LYB)	-321D	PMS 573C	to	PMS 541C
C/# Yellow-Green (YG)	-322D	PMS 374C	to	PMS 357C
C/# Orange-Brown (OBR)	-323D	PMS 150C	to	PMS 437C
C/# Pink-Purple (PPL)	-324D	PMS 211C	to	PMS 273C

4. Usage:

Photopia® PP/PE Conc	(each color)	5-100
Natural PP Resin		100-100

Total 105-100 (weight %)

Dry-Blend the above and obtain required product through normal molding method. Molding temperatures should be below 235°C.

5. N.B.:

Photopia® PP/PE Conc (each color) exhibits various kinds of hues depending upon PP/PE resin it is used with. For example, with C/# LYB-321, hues vary as follows: When SHOAROMER MG-471 is used as PP/PE resin diluted, hue at the time of color exhibition is vivid yellowish blue, while in the cases of POLYPRO BJ 340 A by Tonen Petroleum and Chemical Co. or PP M-1604 by Asahi Kasei Co being used as PP/PE resin diluted, color exhibition is reddish blue. Therefore, please confirm hues of compound moldings with Natural PP resin to be diluted prior to use.

When used together with dry color or pre-colored pellet, do not use anything containing metal salt or zinc group pigment. Metal ion and white pigments (zinc, zinc sulfide) impedes the function of light susceptible color change.

6. Appearance: 20kg/Paper Bag