The Master Batch for Laser Transmission

*e*BIND® LTW®-series

*e*BIND® LTW®-8300

● Base Polymer : PC ● Recommended Dilution Ratio : 15 times

Optical Properties

Test Polymer PC : eupilon® S3000R

Polymer Maker Mitsubishi Engineering-Plastics Corp.

Cylinder Temperature	300℃
Molding Temperature	100℃
Injection Molding Machine	Si-50
Thickness	3mm

Wavelength	Transmittance (%)		Reflectance (%)
	Initial	After 15min in the molding machine	
940nm	91	91	9
980nm	91	91	9
1064nm	91	91	9
1100nm	90	89	9

Appearance

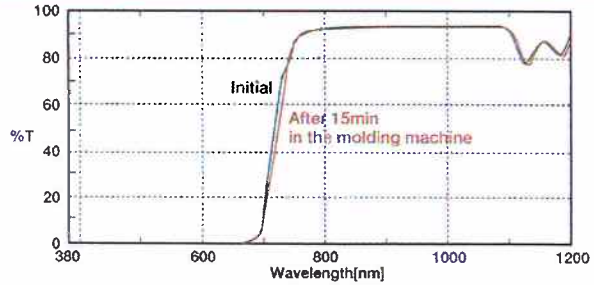
Hue	Black
OD Value	3.20
L*Value	0.09
a*Value	0.01
b*Value	-0.11
Y Value	0.27
ΔE (Heat Resistance) After 15min in the molding machine	0.55

Light Source : C-2 30mmΦ

Registrations

ENCS Japan	TSCA USA	EINECS EU	AICS Australia	ECL Korea	IECSC China
○	○	○	○	○	○

Transmission Spectrum



Thickness : 3mm

Mechanical Properties

Test Polymer PC : eupilon® S3000R

Polymer Maker Mitsubishi Engineering-Plastics Corp.

Cylinder Temperature	300℃
Molding Temperature	100℃
Injection Molding Machine2	Si-80

		strength retention
Tensile Strength	66MPa	88%
Flexural Strength	103MPa	100%
Charpy Impact Strength	70kJ/m²	96%

Color Fastness

Sublimation Resistance		◎ Excellent	80℃/24hrs. 200g/cm²
Fastness of Blooming (Moisture Resistance)		◎ Excellent	80℃ 95%RH
Chemical Resistance	Acid	◎ Excellent	18%HCl aq. pH:1
	Alkali	◎ Excellent	10%NaOHaq. pH:13
	Ethanol	◎ Excellent	
	Toluene	△ Good	

※This data is the evaluation result only. We do not guarantee as the product specification. There are times when it is not possible to supply for the prototype.

Orient Chemical Industries, Ltd.

2007.3. 2000