The Master Batch for Laser Transmission

*e*BIND® LTW®-series

*e*BIND® LTW®-8950H

● Base Polymer : PBT ● Recommended Dilution Ratio : 40 times

Optical Properties

Test Polymer PBT-GF30% : NOVADURAN® 5010G30

Polymer Maker Mitsubishi Engineering-Plastics Corp.

Cylinder Temperature	250℃
Molding Temperature	80℃
Injection Molding Machine	SI-50
Thickness	1.5mm

Wavelength	Transmittance (%)		Reflectance (%)
	Initial	After 15min in the molding machine	
940nm	23	23	52
980nm	23	23	51
1064nm	25	27	50
1100nm	25	27	48

Appearance

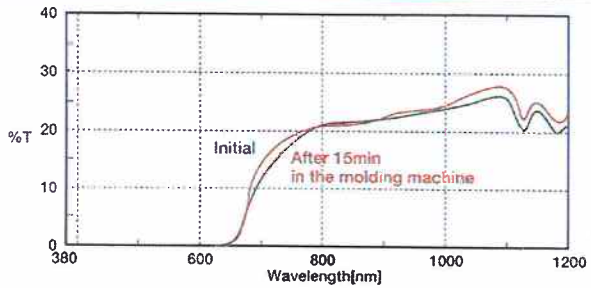
Hue	Reddish Black
OD Value	1.81
L*Value	2.93
a*Value	2.56
b*Value	3.07
Y Value	0.43
ΔE (Heat Resistance) After 15min in the molding machine	1.98

Light Source : C-2 30mmΦ

Registrations

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

Transmission Spectrum



Thickness : 1.5mm

Mechanical Properties

Test Polymer PBT-GF30% : NOVADURAN® 5010G30

Polymer Maker Mitsubishi Engineering-Plastics Corp.

Cylinder Temperature	250℃
Molding Temperature	80℃
Injection Molding Machine2	Si-80

		strength retention
Tensile Strength	124MPa	100%
Flexural Strength	188MPa	99%
Charpy Impact Strength	8kJ/m²	91%

Color Fastness

Sublimation Resistance		△ Good	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	◎ Excellent	

※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.

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