



Near infrared absorbing Masterbatch for polycarbonate

Shields heat rays, and realizes excellent light permeability



Features

- The inorganic heat-absorbing material absorbs near-infrared light rays.
- Reduces any increase in the indoor temperature from direct sunlight.
- The visible ray transmittance is high in addition to remarkable light permeability and transparency.

< Standard Color >

- Optical Properties(Typical Value) -

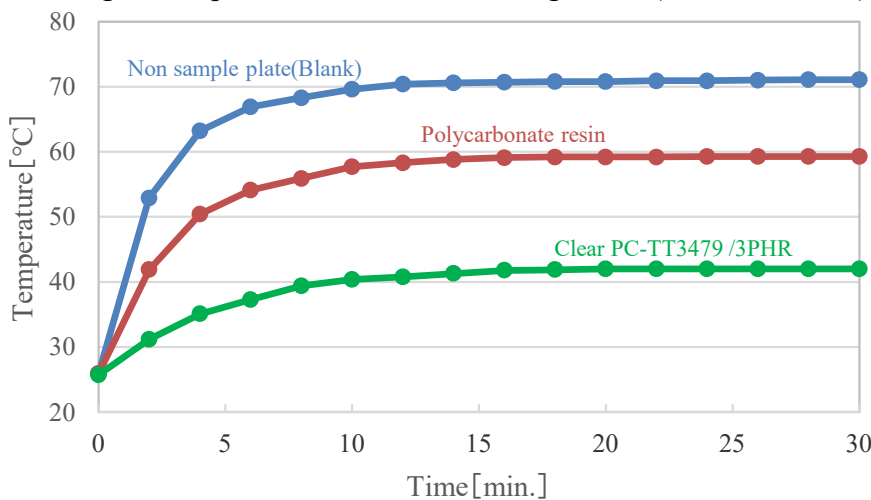
Sample	Color	Addition amount [PHR]	Thickness [mm]	Total Luminous Transmittance [%] ※1	Solar Transmittance [%] ※2	Max. Temperature [°C] ※3
Blank	—	—	—	—	—	71
Polycarbonate resin	Clear	—	2.0	90.3	87.7	59
Clear PC-TT3479	Brownish Yellow	3.0	2.0	49.5	28.4	42

※1 : Based on ISO 13468-1

※2 : Based on ISO 14782

※3 : Temperature measured under Infrared lamp with a digital temperature sensor painted in black with a marker(refer to Fig.1)

Fig.1 Comparison test of Heat-cutting effect (Standard Color)



- Application examples -

- Carport, Terrace
- Bus stop, Platform
- Warehouse, Stockyard

[Remark]

The data contained in this document are representative values and are not intended to guarantee product performance.

Please verify sufficient performance under actual usage conditions.



レジノカラー工業株式会社
RESINO COLOR INDUSTRY CO.,LTD.

Headquarters Phone: +81-6-6301-0636 Fax: +81-6-6308-6638

Tokyo Phone: +81-3-3634-1746 Fax: +81-3-3633-6929

<http://www.resinocolor.co.jp/>



< Color Variation >

- Optical Properties (Typical Value) -

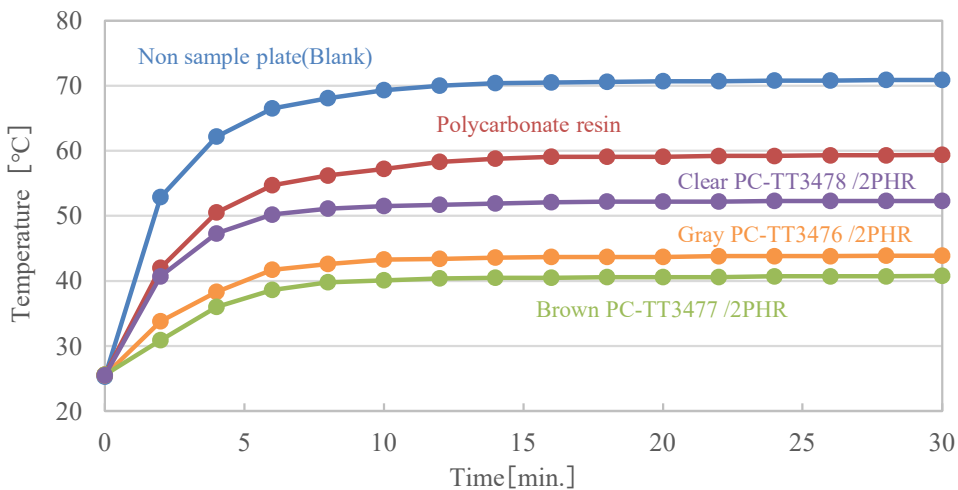
Sample	Color	Addition amount [PHR]	Thickness [mm]	Total Luminous Transmittance [%] ※1	Solar Transmittance [%] ※2	Max. Temperature [°C] ※3
Blank	—	—	—	—	—	71
Polycarbonate resin	Clear	—	2.0	90.2	87.8	59
Gray PC-TT3476	Gray	2.0	2.0	41.0	32.5	44
Brown PC-TT3477	Brown	2.0	2.0	2.0	6.7	41
Clear PC-TT3478	Clear	2.0	2.0	72.4	65.8	52

※1 : Based on ISO 13468-1

※2 : Based on ISO 14782

※3 : Temperature measured under Infrared lamp with a digital temperature sensor painted in black with a marker(refer to Fig.2)

Fig.2 Comparison test of Heat-cutting effect (Color Variation)



We can adjust color and the NIR cut performance.

[Remark]
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Near infrared absorbing Masterbatch for polyolefin

Shields heat rays, and realizes excellent light permeability



Features

- The inorganic heat-absorbing material absorbs near-infrared light rays.
- Reduces any increase in the indoor temperature from direct sunlight.
- The visible ray transmittance is high in addition to remarkable light permeability and transparency.

- Optical Properties(Typical Value) -

Sample	Color	Addition amount [PHR]	Thickness [mm]	Total Luminous Transmittance [%] ※1	Haze [%] ※2	Solar Transmittance [%] ※3	Max. Temperature [°C] ※4
Blank	—	—	—	—	—	—	75
Polyethylene resin	Clear	—	0.16	90.0	23.97	89.25	73
Clear PB-TT3553	Brownish Yellow	6.0	0.16	79.9	44.16	71.43	66

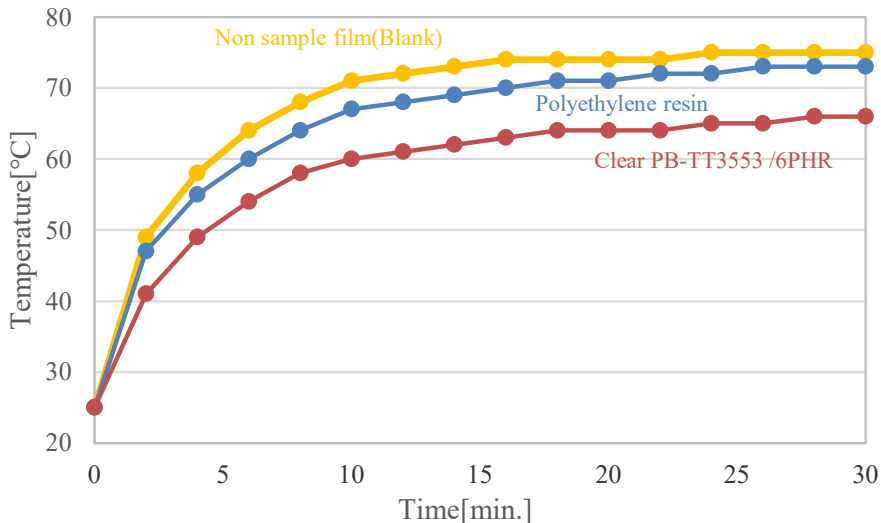
※1 : Based on ISO 13468-1

※2 : Based on ISO 14782

※3 : Based on ISO 9050

※4 : Temperature measured under infrared lamp with a digital temperature sensor painted in black with a marker(refer to Fig.1)

Fig.1 Comparison test of Heat-cutting effect



Product Name	Base Resin
Clear PB-TT3553	LDPE

- Application examples -

- Greenhouse film
 - ◆ This product absorbs near infrared rays, so it suppresses the temperature rise of plants and ground.
 - ◆ This product suppresses temperature damage to crops that often occurs in summer.
 - ◆ Use of this product can be expected to reduce the number of watering.
- Aquaculture film

[Remark]

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