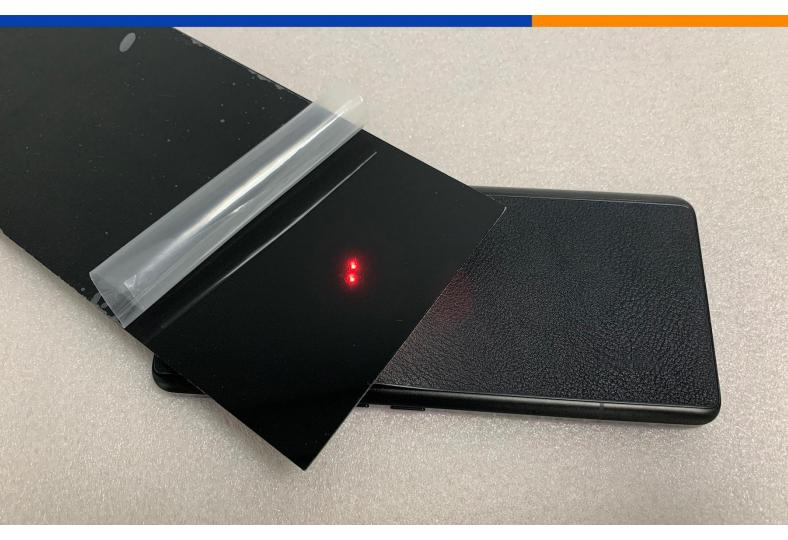


ONE-STOP SUPPLIER OF ENGINEERING PLASTIC









UVPLASTIC

IR Transmitting Polycarbonate (UVFPC-IRT)

www.uvplastic.com www.uvacrylic.com

ABOUT UVPLASTIC

2003 165 50+ 1200+ 12+

Founding Time Staffs Countries Clients Millions

WHO WE ARE

UVPLASTIC Material Technology Co., Ltd is a *ONE-STOP SUPPLIER* in the engineering plastic field, established in 2003 at Suzhou, China. After many years of continuous effort, we have one subsidiary and three trademarks (<u>UVPLASTIC</u>, <u>UVACRYLIC</u>, <u>VIEWSKY</u>), main business are:

- 1. Engineering Plastic: providing polycarbonate and acrylic in all forms;
- 2. Machining Service: providing the integrated machining solution for engineering plastic;
- 3. Application: we design and manufacture products based polycarbonate and acrylic, including <u>VIEWSKY Bubble Tent</u>, <u>Geodesic Dome Tent</u>, <u>Office Chair Mat</u>, <u>Riot Shield</u>, Mini-Greenhouse, etc.

Today, UVPLASTIC is active in architecture & construction, agriculture, medical industry, auto industry, security industry, electronic industry, POP display, optical industry, and industrial fabrication, etc.

COOPERATION PARTNER









WHY UVPLASTIC

One-Stop Supplier



UVPLASTIC is a one-stop <u>supplier of</u> <u>polycarbonate</u> and <u>acrylic sheets</u> in all forms. Meantime, we offer the complete system for the greenhouse, building roof, and facade system.

VA A

Design and Development

With assistance from CAD,
Solidworks, CATIA, and UG, UVPLASTIC
works with global engineers to discuss
product feasibility and find the best solution
for the projects.

Machining Service



With more than 15 years of experience and high efficient working style,
UVPLASTIC can build the prototype and will make customer's ideas come true within short time.

Design it and make it

UVPLASTIC have designed some products based on polycarbonate and acrylic, such as VIEWSKY Bubble Tent, Geodesic Dome Tent for hotel, restaurant, glamping, and display application. The mini-greenhouse and office chair mat are popular all over the world.

FEATURED PRODUCTS

UVPLASTIC Polycarbonate

Solid Polycarbonate Sheet;

IR Transmitting Polycarbonate

Anti-Static Polycarbonate;

Polycarbonate Light Diffuser;

Muiti-wall Polycarbonate;

Polycarbonate Film;

Corrugated Polycarbonate;

Polycarbonate Roofing Panel;

Polycarbonate Facade;

UVACRYLIC Plexiglass:

Clear Acrylic Sheet;

Colored Acrylic Sheet;

Acrylic Rod;

Acrylic Tube;

Acrylic Mirror;

Acrylic Block;

LGP Acrylic;

Acrylic Film;

Machining Service

Machining Polycarbonate;

Custom Acrylic;

Glamping Dome Tent

VIEWSKY Bubble Tent;

Geodesic Dome;



IR Transmitting Polycarbonate (UVFPC-IRT)

Introduction

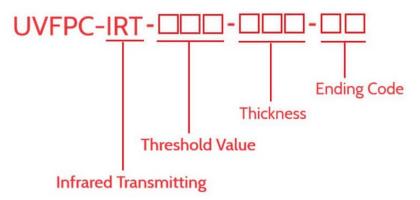
UVFPC-IRT is a family code of UVPLASTIC Infrared Transmitting Polycarbonate, which transmits infrared rays while blocking ultraviolet (UV) and visible light by the specifically formulated polycarbonate material.

IR Transmitting Polycarbonate is an opaque black or transparent plastic sheet that offers the same mechanical properties as a standard <u>solid polycarbonate sheet</u> but allows infrared light to pass through. It is the right material for transmitters and receivers of infrared rays, such as Cameras,



Rifle Optics, Sighting Devices, Unmanned Aerial Vehicles, Automatic Drives, and Home Automation, etc.

Product Code



| No. | Code | Description |
|-----|-----------------|---|
| 1 | IRT | IR Transmitting |
| 2 | Threshold Value | The Minimum Light Wavelength That Pass the IRT Polycarbonate |
| 3 | Thickness Code | 500: Thickness is 0.5mm; 800: Thickness is 0.8mm; 1000: Thickness is 1mm; 1200: Thickness is 1.2mm; 1500: Thickness is 1.5mm; |
| 4 | Ending Code | N: Normal Grade; SR: Scratch Resistant Grade |



Products Range

| Model | Product Name | Grade | Thickness | Infrared Transmittance |
|------------------|-------------------|-------------------|------------------------------------|------------------------|
| UVFPC-IRT-700-N | IRT Polycarbonate | Normal | 0.5mm, 0.8mm, 1mm, 1.2mm, 1.5mm | >88% (780~1100nm) |
| UVFPC-IRT-700-SR | IRT Polycarbonate | Scratch Resistant | 0.5mm, 0.8mm, 1mm, 1.2mm, 1.5mm | >88% (780~1100nm) |

Physical Properties

| Properties | Testing Method | Unit | Value |
|--|-----------------|--------------|------------------|
| Standard Threshold Value | N/A | Nanometer | 700 |
| (Standard product) | | | |
| Infrared Transmission | 1mm thickness; | % | >88 |
| | 850 to 1100 nm; | | |
| Visible Light Transmission | 1mm thickness; | % | <1 |
| | 400 to 700 nm; | | |
| Refractive Index | ASTM D542 | | 1.59 |
| Melt Index | ASTM D1238 | g/10 min | 10 (300°C/5.0KG) |
| Density | ASTM D792 | g/cm^3 | 1.2 |
| Water absorption, 24H | ASTM D570 | % | 0.5-0.7 |
| Notch impact strength | ASTM D256 | J/M | 80 |
| Tensile Strength at Break | ASTM D638 | MPa or N/mm² | >630 |
| Elongation at break | ASTM D638 | % | 100 |
| HDT, 1.82MPa, 6.4mm | ASTM D648 | °C | 125 |
| Hot deformation temperature 1.80 MPa annealing | ISO 75-2/A | °C | 132 |
| Flammability | UL94 | / | V-2 |
| Surface hardness (Normal grade) | 750g | | 2B |
| Surface hardness (Scratch Resistant Grade) | 750g | | НВ |



Applications

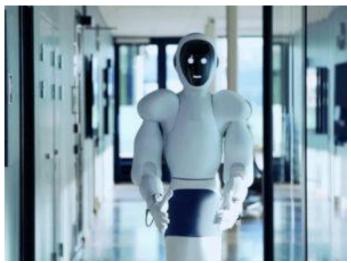
















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