Imagine Black

Material Introduction

Introduction

Imagine Black is a low-viscosity photosensitive resin material. Because of its high smoothness, good dimensional stability, strong chemical resistance, and stable performance, this resin is widely trusted and recognized by our customers. Its performance is similar to engineering plastics, such as ABS and PBT.

Pros

This purely black translucent resin enables you to save your painting costs for black products. In addition, it can reach high precision, smooth surface, and good dimensional stability. This material is suitable for high-precision products and products applied in high humidity environments.

Cons

Strength and toughness of Imagine Black are slightly weaker than nylon materials. Because of its black color, product made with Imagine Black may have more visable layer lines compare to products made with other resin materials.

Tolerance Change over Time

3 Days: 0.15mm or 0.15%; 7 Days: 0.20mm or 0.20%; 15 Days: 0.25mm or 0.25%

Tolerance

0.20mm or 0.2%

Attention ›

Products of Imagine Black become brittle over time when exposed in air, and sunlight accelerates embrittlement. It is recommended that you keep the product in a cool, dry place. Nylon, glass-bead filled nylon, and other materials are recommended if your product requires high-temperature resistance, high-pressure bearing, and multiple assembly and disassembly.

Attributes

Tensile Modulus (ASTM Method D648): 2500
Tensile Strength (ASTM Method D638): 50
Elongation at Break (ASTM Method D638): 5-10%
Flexural Modulus (ASTM Method D2240): 2290
Notched Impact Strength (ASTM Method D256A): 24J/m
Thermal Deformation 0.46MPa (ASTM Method D648): 50℃

Applications

- Structural and Appearance Verification of Household Appliances

  Air conditioners, air purifiers, vacuum cleaners, water dispensers, etc.

- Structural and Appearance Verification of Auto Parts and Supplies

  Rearview mirrors, dashboard, steering wheels, lights, seats, etc.

- Structural and Appearance Verification of Digital and Electronic Products

  Laptops, mobile phones, digital cameras, game consoles, MP3, etc.

- Structural and Appearance Verification of Electrical Equipment

  Video cameras, sockets, electrical instruments, measuring tools, etc.

- Biomedical Devices

  This material is certified by USP Class VI and ISO 10993, which can be used in certain biomedical applications, such as in contact with teeth and skin.