

## Plastics

Most plastics are suitable for both laser marking though not all plastic mark. For the plastics that do not mark, additives such as titanium dioxide, mica and carbon can be added depending upon the material and color. Plastic welding is only available when the beam passes through a transparent plastic onto a non transparent plastic. Even when welded, strength is still an issue. All the following information will pertain to marking. For most plastics a lower power, and medium speed would be required to not burn the plastic and turn the mark brown. A fume extractor would also be recommended for the fumes that come off of the material while the marking process is taking place.

### ABS/BASF/Turlux (Clear)

Marks tend to bubble. Looks brown close-up, but black from far away.

### Barium loaded Pebax (White in Color)

No marking at all with either the red or green laser.

### Delrin Acetal

No marking at all with either the red or green laser.

### Kapton

Partially transparent, but marks with blooming.

### Kynar (Black)

Marks fair. Mark varies due to material.

### LDPE/HDPE Blend (Blue)

Marks white.

### Lexan (Clear Purple Tinted)

Marks good.

### Lexan (Clear)

Marks good.

### Natural Pebax (Clear)

No marking at all with either the red or green laser.

### Noryl GFN3

Poor contrast with both the red and green laser.

### PBT

Good contrast.

### Pelethane (Clear)

No mark with either the red or green laser.

**Polycarbonate/Makrolon (Clear)**

Good contrast.

**POM**

Good contrast.

**Polypropylene (White)**

Fair mark. Grey mark that has decent contrast.

**Sanoprene (Black – rubber-like)**

Good contrast.

**Sanoprene (Black – wetsuit-like)**

No color change.

**Sanoprene (Blue)**

No mark.

**Sanoprene (Red)**

No mark.

**Sanoprene (Purple)**

White mark, hard to see.

**Santoprene**

Fair contrast.

**Silicon (White)**

No marking with the red laser. With the green laser a black mark would appear, but it was all soot and would rub away.

**Teflon**

No mark.

**Udel (Dark Blue)**

Good contrast. A black mark can be obtained with the red laser and a whitish mark with the green laser.

**Udel (Powder Blue)**

Good contrast. A black mark can be obtained with the red laser and a whitish mark with the green laser.

**Ultem 1000 (Brown)**

Weak contrast, but can be clearly seen when backlit.

**Ultradur B 4300 G6 (Black Matte)**

Good contrast.

**Valox Resin 420 (Black Gloss)**

Good contrast.

**Valox Resin 430 (Black Gloss)**

Good contrast.

**Xylex**

Marks good.

**Zytel DMX 65G30AH (Black)**

Poor contrast, slow mark.

**Zytel DMX 65G30AH (Clariant Color Laser Markable)**

Good contrast.

**Zytel DMX 65G30AH (Native Color)**

Poor contrast, slow mark.