## Laser Settings for LMC12 Materials

The following table details recommended laser settings for LMC12 materials on various plastics. These settings are designed to help guide the user to the optimum parameters as quickly as possible. Please note that there will be variations in substrate finish and between different brands of laser. It may still be necessary to perform further refinement of settings to achieve the desired mark.

| LMC12 Suggested Laser Settings Used for $CO_2$ X-Y Laser | | | | | | |
|---|---|---|---|---|---|---|
| Substrate Material | Settings 45W laser | | Settings 30W laser | | Lens | DPI/PPI |
| | Power (W) | Speed (in/sec) | Power (W) | Speed (in/sec) | | |
| Nylon | 7 | 38 | 7 | 38 | 2.5” | 500/1000 |
| Polyurethane | 5 | 37 | 5 | 37 | 2.5” | 600/600 |
| HDPE | 14 | 56 | 14 | 56 | 2.5” | 600/600 |
| Polycarbonate | 18 | 28 | 18 | 28 | 4.0” | 600/600 |
| PVC | 5 | 31 | 5 | 31 | 2.5” | 600/1000 |

| Suggested Laser Settings Used for Beam Steered ND:YAG or Fiber Laser with a 100mm lens | | | | |
|---|---|---|---|---|
| Material | Power (W) | Speed (cm/sec) | Hatch Spacing “ | CW Mode or Q-Switch Freq |
| Nylon | 1 | 20 | 0.002 | CW / ≥50KHz |
| Polyurethane | 2 | 25 | 0.002 | CW / ≥50KHz |
| HDPE | 1 | 20 | 0.002 | CW / ≥50KHz |
| Polycarbonate | N/A | N/A | N/A | N/A |
| PVC | 0.25 | 10 | 0.002 | CW / ≥50KHz |