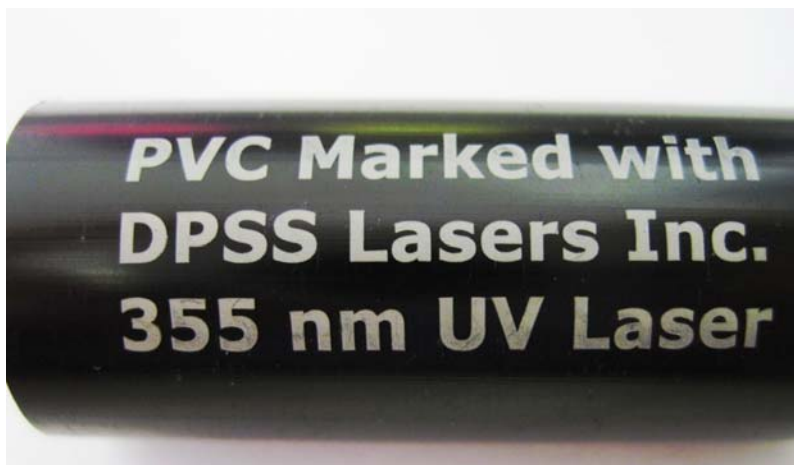

355 nm DPSS LASER MARKING OF POLYVINYL CHLORIDE



PVC, polyvinyl chloride is a thermoplastic polymer and is the third most widely produced plastic, after PE and PP. It is used in a wide variety of applications, including hoses, pipes, insulation on electrical wires, construction, windows and door frames and even clothing.

PVC is a cheap, durable material, which is biologically and chemically resistant. This makes it the plastic of choice for household construction. Often it is difficult to print directly on these materials and labels are an ineffective solution.



DPSS 355 nm UV lasers are able to affect a mark on many types of PVC via a photo-chemical or photo-bleaching process. This “Cold Marking” process eliminates the thermal damage typically encountered with longer wavelength lasers. The resulting mark becomes a permanent part of the product and requires no inks or solvents. Because many plastics are extremely sensitive to UV wavelengths, marking speeds of 3 to 5 meters per second are achievable with UV powers as low as a few hundred mW.

Laser Model	Average Power	Rep Rate	Scan Rate
3510-30	1 Watt @ 355 nm	30kHz	3to 5 meters / sec