Chroma Color Corporation

CHROMARK®
Laser Marking Additives and Concentrates

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Plastics laser marking is often considered a relatively new technology, but the industry has been developing laser active plastic additives and color concentrates for quite some time. The allure of laser marking over pad-printing or adhesive labels, especially for part identification, is that laser marking is fast, contactless, clean, precise, low-cost, and permanent.

The light beam, or 'laser beam' can be generated by different sources to produce different wavelengths, amplitudes, intensities, and beam widths, so it is important to know your laser's characteristics.

There are many different laser sources that define the laser characteristics, but the most common are: Carbon Dioxide (gas), Nd:YAG and Vanadate (solid state crystal), and Fiber (REdoped). Each type has advantages and disadvantages depending on the desired application and mark type, but generally speaking, all can be used for marking plastics. Therefore, laser marking additives help to control marking behavior over a broad class of resins and pigment chemistries.

Depending on the type of additive used, the desired mark, and the color concentrate used, different mark types may be considered. Foaming, engraving, ablation, carbonization, and bleaching are the primary mark types for plastics. For marks that don't involve material removal, LASER marking additives can produce light marks on dark colored parts, and dark marks on light colored parts primarily by the foaming and carbonization mechanisms. Though many concentrates are inherently markable, additives improve the marking depth, contrast, and durability. Careful selection of pigments, stabilizers, and resins can also improve the mark performance.

At **Chroma Color Corporation**, we can help you select the right colorant and additive package to ensure you obtain the ideal laser mark for your product at an economical cost-to-color. With our in-house NIR Laser, we can help you optimize the marking behavior and laser settings for a variety of resins including ABS, PE, PP, LDPE, HDPE, Co- Polyester, PBT, Polysulfone, GPPS, HDPE, Nylon, Acrylic, PVC, Polyacetal, andPolycarbonate. In addition, Chroma's patented G3 technology can also provide highly loaded concentrates with laser marking additives.
Call us today !

For more information about CHROMARK®
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