

ALPERFORM[®] LS – LASER SENSITIVE

Permanently marking plastics



Inscription of plastics is generally possible through the usage of laser energy. During this process, the plastic absorbs the energy of the laser and a noticeable change in color can be seen. With the product series ALPERFORM[®] LS, ALBIS PLASTIC can offer Masterbatches that permanently improve the laser markings in diverse plastics.

Laser marking is usually applied when permanent inscription is needed. When inscribing with a laser, either the plastic expands or the plastic starts to carbonize. Expansion of the plastic leads to light markings whereas carbonization leads to dark markings. In natural condition, PA and POM for example, tend to expand whereas PC, PBT, PS and ABS tend to carbonize. Polyolefins on the other hand can be either foamed or carbonized. With the addition of ALPERFORM[®] LS Masterbatches, plastics can be modified to be inscribed as desired with either light or dark markings and with a high contrast.

Dark markings with a light background offer high flexibility in coloration of the background itself. Starting at white ranging to a variety of colors, diverse approaches are possible – also as a Combibatch. Even transparent applications can be realized. However, light markings that occur through expansion are usually only visible on dark or more respectively black backgrounds. What needs to be considered, is that the laser additives act as black pigments and color the component itself. Possible carbon black contents therefore need to be reduced as these absorb laser energy which is then not available for laser marking.

ALPERFORM[®] LS – LASER SENSITIVE: advantages at a glance

- Light and dark color markings
- High contrast and precise inscription
- Applicable with common laser systems such as CO₂ and Nd:YAG
- Color-Combibatches for background coloration possible
- Flexible use
- Masterbatch solutions for a multitude of thermoplastics

Product	Carrier	Inscription	Use	Comments
ALPERFORM® PE LS AT 229	PE	Dark	PP, PE, POM, PBT, TPE, TPU	For opaque applications, dyeable
ALPERFORM® SAN LS AT 0216-15	SAN	Dark	SAN, PC, ABS, PC/ABS	For opaque applications, dyeable
ALPERFORM® PA LS AT 0218-15	PA	Dark	PA	For opaque applications, dyeable
ALPERFORM® PE LS 0231-16	PE	Light	PE, PP, TPE, TPU	Contains carbon black, only for natural compounds
ALPERFORM® PE LS 0230-16	PE	Light	PE, PP, TPE, TPU	Does not contain carbon black, can be used in black compounds
ALPERFORM® SAN LS 0222-16	SAN	Light	SAN, PC, ABS, PC/ABS	Contains carbon black, only for natural compounds
ALPERFORM® PA LS AT 0204-14	PA	Light	PA	Contains carbon black, only for natural compounds
ALPERFORM® SAN LS 0234-16	SAN	Dark	SAN, PC	For transparent applications
ALPERFORM® PBT LS 0233-16	PBT	Dark	PBT, PET	For transparent applications
ALPERFORM® PS LS 0232-16	PS	Dark	PS	For transparent applications

Additional products and information are available on request.

In collaboration with an external lab, we are able to provide lasered sample plaques based on your Polymer/Masterbatch combination for testing purposes. We can therefore determine, which of our products optimally fulfills your requirements.



Under specific conditions, it is also possible to develop colored markings for inscription on black backgrounds. This is possible, for example, in the colors red, yellow, green and blue. On the contrary, exact color matches e.g. according to RAL are not possible.

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