



LASER MARKING ADDITIVES / LASER MARKING PIGMENTS

Laser Marking Additive:

Laser Marking additives/ pigments helps to provide a PERMANENT MARK directly on the plastic component.

Methods of Laser Marking:

- ❖ CARBONIZATION: Colour change due to the interaction between the pigment in polymer and laser light. The pigment absorbs laser light, transfer the heat to the surrounding polymer which lead to carbonization
- ❖ →For dark marks on light coloured plastics
- ❖ FOAMING: The laser beam induces the development of a light marking. The pigment powder absorbs the light and causes the polymer to develop bubbles and form a foam layer
- ❖ →For light marks on dark coloured plastics
- ❖ COLOUR CHANGES: Laser induced thermal chemical reactions of pigmented polymers

Application Examples:

- ❖ Automobile parts – All Plastic Components, Speedometer, Tachometer, Power Window Buttons etc
- ❖ Computer Key Boards
- ❖ Electrical & Electronic Components – Connectors, Electric Plugs
- ❖ Pharma Packaging – High Resolution Bar Codes, Scan Codes
- ❖ Closures – Caps & Closures - High Speed Marking , High Contrast, Permanent Marking.
- ❖ Animal Tags – Colour Stable, High Contrast Marking
- ❖ Wire and Cable Compounds – Fast, No Consumables Used, Counterfeit Proof

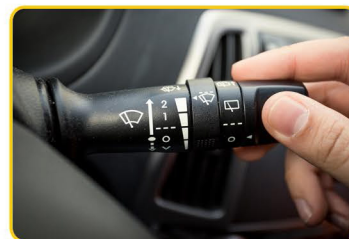




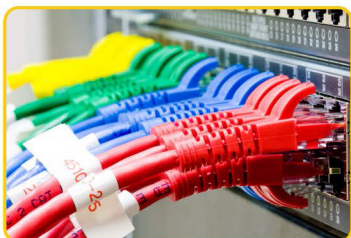
Caps & Closures



Plastic Pipes



Automobile Interior Switches



Cables & Wires



Animal Tags



Bar Code & QR Codes



Computer Key Boards



Computer Key Boards



Connectors

Advantages Of Laser Marking:

Salient Features	Advantages
Quality Marking	Gives High Resolution & Contrast Markings
Permanent Marking	No Fading of Inks, No Solvent Abrasion Hence Counterfeit Proof
Marking Speed	High
Cleanliness	No Smudging of Ink, No Downtime of Cleaning
Cost Effective	No Recurrent Cost of Consumables

Grades:

Resin	Black Marking on White Substrate	White Marking on Black Substrate	White Marking on Grey Substrate	Black Marking on Grey Substrate	Black Marking on Green Substrate
PE	Irasorb LM 002	Irasorb CTO M10	Irasorb CTO M10	Irasorb LM 002	Irasorb LM 002
PP	Irasorb LM 004 Irasorb LM 005	Irasorb CTO M10	Irasorb CTO M10	Irasorb LM 005	Irasorb LM 005
PET	Stanostat CPM 10 C	Irasorb LM 001			
PVC	Irasorb LM 004 Irasorb LM 006	Irasorb CTO M10 Irasorb CTO M10	Irasorb CTO M10	Irasorb LM 005	Irasorb LM 005
PC	Irasorb LM 002	Irasorb CTO M10	Irasorb CTO M10	Irasorb LM 002	Irasorb LM 002
TPU	Irasorb LM 004 Irasorb LM 006		Irasorb CTO M10	Irasorb LM 004 Irasorb LM 006	Irasorb LM 004 Irasorb LM 006
PA	Irasorb LM 002	Irasorb CTO M10 Stanostat CPM 10 F	Irasorb CTO M10 Stanostat CPM 10 F	Irasorb LM 005	Irasorb LM 005
PBT	Irasorb LM 004	Stanostat CPM 10 F		Irasorb LM 004	Irasorb LM 004

Transparent PET – BITO and Irasorb CTO 20

Transparent PC - BITO



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Technical Support:

Our Principals K&W Ltd will provide technical support and consultancy with their own Laser machine.

Thus, you will get

- ❖ Optimal marking result for each application
- ❖ The whitest square in the following picture indicates the right marking speed and the dissolution.
- ❖ For challenging applications – they are keen to develop and innovate together JOINTLY.

