RAYOPT

Nowadays safety and ecology characterize modern life. The RAYOPT product family is our solution to simplify these aspects. These are masterbatches designed to take advantage of automated optical reading. This product line is intended to optimise the recycling of black waste materials through carbon black free pigments. It also combats counterfeiting crimes or supports other industrial processes.

GAYPA COLORBATCH
A member of the **GRAFE** Group

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GAYPA COLORBATCH

RAYOPT

NIR

Those involved in making recyclable plastic products face a dilemma: which type of dark color masterbatch to choose? This is because the carbon black pigment used to produce all kind of dark shades (black, burgundy, midnight blue...) is undetectable by optical separators in waste sorting centers. This makes the product undetectable and, consequently, unrecyclable. NIR is our carbon black free masterbatch product line. The use of this state-of-the-art technology also gives the final product some additional features, such as less thermal degradation of the resin and better color fastness.

Technical note: The NIR line is designed to meet the needs of circular economy in the plastic packaging sector. It is proposed as an alternative to the more classical RAYLEN line, where recyclability cannot be guaranteed. The recyclability is hereby understood either as the optical identification and separation of materials containing dark pigments by waste sorting machines or as the reduction of multiplecomponents that are otherwise difficult to separate.

NIR			
Name	Reflectance	Shade	Dosage
Raytek Black M8 A 857/5AH	Moderate	dark-brown	1.0%
Raytek Black M8 A 858/5AH	High	dark-brown	1.0%

DETECH

To address the problem of counterfeiting, which is highly prevalent nowadays, our lab team designed an innovative solution to mark plastic materials with an unique chemical fingerprint. DETECH are masterbatches that, combined with certain chemical compounds with specific and detectable properties, make the final product traceable throughout the supply chain. This is possible through an IT solution of chemical trace recording, digital storage and data sharing using blockchain technology. The latter was implemented in collaboration with 7bridges, a well-known software solutions company.

Technical note: Specific equipment technology are required to identify products formulated with the help of DETECH product line. Please contact our technicians for more information.

LASERMARK

We may find laser marked labels on all kind of products around us but the color, as always, plays a key role. Specifically, the application of a laser beam for marking and labelling is achieved by „burning" the material surface but unfortunately not all colors and pigments allow this process so well. LASERMARK products are mica-based masterbatches, which not only enable the laser marking process but also offer a much better and noticeable contrast to the background color. These masterbatches can be of two types: one can either highlight the dark burnt mark on a bright background or enables a bright marking on dark colors to stand out better .

Technical note: LASERMARK replaces the need for ink printing or for sticking labels on the surface of final parts . By simplifying the production of an item or its packaging it ensures higher success in terms of recycling and savings of production costs.

RAYOPT

Recommended dosage: ca 3%

Minimum compliance: Packaging

* Any QA specifications agreed with customers are disclosed in individual data sheets.