

Technical Data Sheet

RPCF

General Description

- Daylight and ultra-violet fluorescent plastic colorants for food contact applications with EU and FDA compliancy.
- A dyed/pigmented thermoplastic polyamide-ester copolymer.

Applications

- Plastics for single and repeated use applications in contact with all food types.

Product Features

- Please consult the Keller and Heckman opinion letters concluding that RPCF-series are compliant to the mentioned directives (10/2011/EC and FDA) as amended till date of this opinion letter. The Keller and Heckman opinion letters^(A) define the approved conditions of use of RPCF in food contact materials.
- In compliance with European plastics regulation (No 10/2011/EC) and European safety requirements: *up to 1%* in LDPE, HDPE, PP for single and repeated use applications in contact with all food types at room temperature or lower.^(B)
- In compliance with Food and Drug Administration status (FDA): up to 1% in HDPE, PP for single and repeated use applications in contact with all foods under conditions of use E-G defined in 21 CFR 176.170(c): room temperature filled and stored, refrigerated storage and frozen storage (no thermal treatment in the container).^(B)
- RPCF colors can be blended to achieve intermediate fluorescent colors.

^(A) Opinion letters from Keller and Heckman is currently being updated.

^(B) For approved conditions of use, request the Opinion letter from Keller and Heckman.

Standard Colors

Product Name	Description
RPCF-10	Chartreuse
RPCF-14	Orange Red
RPCF-18	Magenta

Packaging:

1 box = 20kg
MOQ = 20kg

Storage & shelf life:

120 months when kept in closed original packaging in a dry place at ambient temperature.

Safety & regulatory:

Safety Data Sheet available on request.

Plastic thickness & concentration limitations of RPCF

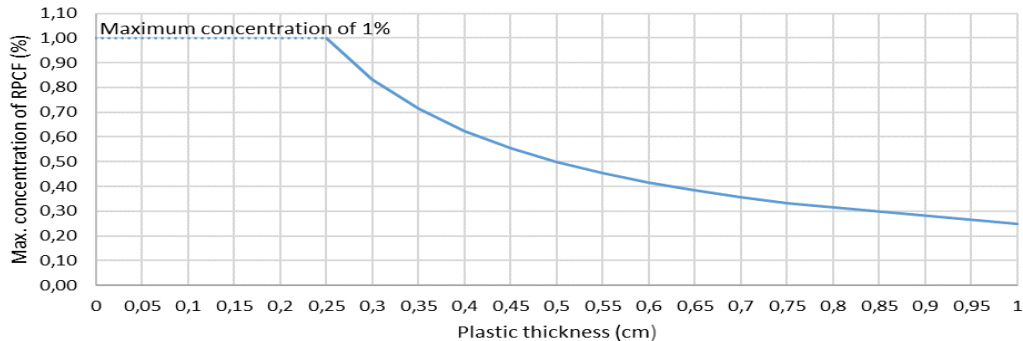
The updating of the European Food Safety Authority (EFSA)'s 'Note for guidance for petitioners' in May 2017 alters Keller and Heckman prior findings of the opinion letter with respect to the EU status of the RPCF masterbatches, such that Keller and Heckman considers the following restrictions now apply:

- For plastic end application with a thicknesses of up to 0.25 cm, up to 1% of RPCF can be used in the final article.
- If the thickness of the final article exceeds 0.25 cm, the concentration of RPCF may be calculated using the following formula: $\frac{1\% \times 0.25 \text{ cm}}{\text{Thickness in cm}}$

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Physical properties

Delivery form	Powder
Particle size (Laser diffraction)	8 – 16 μm / <15 μm
Melting point	125 – 150 $^{\circ}\text{C}$
Specific gravity	1.20 g/ml
Bulking value	0.30 – 0.40 g/ml

Test methods and Certificate of Analysis (COA) available on request.

Processing

It is essential the minimum processing temperature of 170 $^{\circ}\text{C}$ is reached in order to melt in the polymer and evenly distribute the pigment throughout the plastic.

To minimize the influence of heat on the fluorescent properties, temperature impact needs to be hold as low as possible.

RPCF pigments are designed for use at industrial sites as described in EU COMMISSION REGULATION 2023/2055 of 25 September 2023.

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