

*Masterbatch with and without Halogen*

*Solutions for extrusion and injection moulding*

*Range of products for PP*

*Highly concentrated Masterbatch*



**ELECTRICAL  
&  
ELECTRONIC  
PRODUCTS  
IN PP**

**FLAME  
RETARDANTS**

Gabriel-Chemie introduces a new range of more sustainable flame retardant (FR) masterbatches for electrical and electronic applications.

One of the group's major goals is **sustainability**, in line with the new upcoming regulations of Chemical Strategy for Sustainability (CSS). This is why Gabriel-Chemie has introduced a new range of FR products for Polypropylene (PP). The range includes more sustainable formulations of classic halogenated solutions, but is also extended with the addition of new halogen-free solutions and even zero-halogen solutions. The products can be used in many applications ranging from electrical cable conduits to junction boxes, fuses and distribution boards for conventional and photovoltaic applications.

The new product range has also been designed to retain its flame retardant properties for multiple recycling loops, further reducing the long term ecological impact of the end products. Gabriel-Chemie has successfully completed internal testing that confirms the benefits of using zero-halogen masterbatches to improve the recyclability of the final product, in accordance with the requirements of the Eco-Design regulation. This is a very important factor, given that it has been estimated that over 80% of product related environmental impacts are determined during the product design phase. The new zero-halogen masterbatches increase the value of recycled material at the end of a product lifetime and enable the recycled material to maintain its FR properties for a new generation of products.

## APPLICATIONS

Thick-walled articles made of PP

Injection moulded articles

Blow moulded articles

Pipes



## Our Portfolio for Electrical and Electronic Applications in PP encompasses the following products

### Halogenated Standard Products

#### HP78900FR

HALOGENATED

Based on LDPE

Available also as combi version (colour + FR)

#### HP7AB4520FR

HALOGENATED

Reduced Antimony Trioxide  $Sb_2O_3$

Based on LDPE

Cheapest solution

Available also as combi version (colour + FR)

PRODUCT CODE	DOSAGE SUGGESTED	FR CLASS	GWFI 850 and 960 @ 2,0 mm
Maxithen HP78900FR	2-5%*	V2 @ 1,6 mm V2 @ 3,2 mm	pass
Maxithen HP7AB4520FR	2-5%*	V2 @ 1,6 mm V2 @ 3,2 mm	pass

\*Depending on the PP-type (PP homopolymer or copolymer)

Specifics of halogen-free masterbatch **PP7MA4847FR** injection moulding  
Available in three colours

Masterbatch based on PP

Low content of halogens - within halogen free norm range

No cancerogenic additives - no Antimony Trioxide

Available also as combi version (Colour + FR)

PRODUCT CODE	COLOUR	DOSAGE SUGGESTED	FR CLASS	GWFI 850 and 960 @ 2,0 mm
Maxithen PP9MA1587FR	Black	2- 8% *	V2 @ 1,6 mm V2 @ 3,2 mm	pass
Maxithen PP9MB0177FR	Grey	2- 8% *	V2 @ 1,6 mm V2 @ 3,2 mm	pass
Maxithen PP1MA3607FR	White	2- 8% *	V2 @ 1,6 mm V2 @ 3,2 mm	pass

\*Depending on the PP-type (PP homopolymer or copolymer)

For extrusion we recommend **PP7MA1477FR**



Specifics of halogen-free masterbatch **PP7MA3407FRLS** for **laser marking**

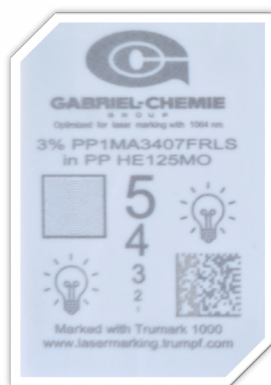
- Masterbatch based on PP

- Low content of halogens - within halogen free norm range

- No cancerogenic additives - no Antimony Trioxide

- Three Maxithen combi masterbatches already available

- Suitable for laser marking - no need for extra laser additive



PRODUCT CODE	COLOUR
Maxithen PP9MB0187FRLS	Black
Maxithen PP9MB0197FRLS	Grey
Maxithen PP1MA3407FRLS	White



Specifics of halogen-free masterbatch **PP7MA4800UVFR contains UV**

Highly recyclable, retains FR properties after numerous extrusions

Low content of halogens - within halogen free norm range

No cancerogenic additives - no Antimony Trioxide

Available in natural colour

Masterbatch based on PP - suitable for injection and extrusion

Contains UV + FR

PRODUCT CODE	DOSAGE SUGGESTED	FR CLASS	GWFI 850 and 960 @ 2,0 mm
Maxithen PP7MA4800UVFR	1 - 6% *	V2 @ 1,6 mm	pass

\*Depending on the PP-type (PP homopolymer or copolymer)



Specifics of the Zero Halogen Masterbatch **PP7MA4940UVFR**

Masterbatch based on PP

Does not contain any halogens

No cancerogenic additives - no Antimony Trioxide

Available in natural colour only

Highly recyclable, retains FR properties after numerous extrusions

Contains UV + FR

PRODUCT CODE	DOSAGE SUGGESTED	FR CLASS	GWFI 850 @ 2,0 mm
Maxithen PP7MA4940UVFR	8 - 15% *	V2 @ 1,6 mm V2 @ 3,2 mm	pass

\*Depending on the PP-type (PP homopolymer or copolymer)

