

# Technical Product Information



## CESA<sup>®</sup>-flam 5101

Exactly your chemistry.

<b>General</b>	Most plastics are combustible and many applications require fire-resistant properties. CESA <sup>®</sup> -flam masterbatches inhibit or prevent the combustion process .
<b>Description</b>	CESA <sup>®</sup> -flam 5101 is a flame retardant concentrate in pellet form, containing a combination of halogenated flame retardants and synergists, in a PE carrier.
<b>Physical Form</b>	Pellets
<b>Characteristics</b>	Bulk density 1,21 g/cm <sup>3</sup> Density 2,0 g/cm <sup>3</sup> Melt flow index ( 190°C; 2,160 Kg) 6 g/10'
<b>Volatiles</b>	< 0,3 %
<b>Applications</b>	Film extrusion and injection moulding of LDPE , LLDPE , HDPE .
<b>Benefits</b>	Free of polybrominated diphenyloxide High loading of active ingredients. Good price / performance ratio
<b>Dosage</b>	3 % - 20 % depending on the required effect, polymer in use, film thickness (see table)
<b>Packaging</b>	25 kg valve type PE bags
<b>Remarks</b>	Since the performance of flame retardants depends heavily on the nature of the finished item (polymer, pigments, other additives), we recommend that users perform their own tests to determine the optimum addition rate. Avoid processing temperature higher than 280°C. After production the extruder has to be cleaned carefully in order to avoid possible corrosion effects. The product should be stored in a cool and dry place, away from direct sunlight. Under proper storage conditions the product can be stored for 12 months.

The information in this publication corresponds to the present state of our knowledge and is intended to describe our products and their possible applications. It is not intended to guarantee the suitability of particular product characteristic for a specific use. Any existing industrial rights are to be taken into consideration. Quality is guaranteed in accordance with our general conditions of sale

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Concentrated applications of CESA<sup>®</sup>-flam 5101, necessary to produce end products complying with international rules, are listed in the following table:

Polymer	% CESA-Flam	Classification	Thickness	Normative	Country
LLD-PE	16	V 2	3,2 mm.	UL 94	U.S.A.
HD-PE	15	V 2	3,2 mm.	UL 94	U.S.A.
LD-PE	4	B 2	150 microns	DIN 4102	D
LD-PE	10	C 1	150 microns	ISO 1182, CSE RF	I
LD-PE	10	L.O.I. = 30	100 microns	ASTM D 2863	
LD-PE	5	L.O.I. = 26	100 microns	ASTM D 2863	
LD-PE	0	L.O.I. = 20	100 microns	ASTM D 2863	

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