



# Technical Data Sheet

## ProFlame™ MC15 /MC25/MC-G

**Trade Name:** Melamine cyanurate MCA

**Molecular Formula:** C<sub>6</sub>H<sub>9</sub>N<sub>9</sub>O<sub>3</sub>

**CAS NO.:** 37640-57-6

MCA is a kind of high effective nitrogen halogen free flame retardant. It is very stable when the temperature is lower than 300°C. However, sublimation will happen when the temperature is above 350°C. The decomposition temperature of MCA is 440°C ~ 450°C. The flame retardancy takes effect through absorbing heat and releasing incombustible gases after sublimation.

Item	MC15	MC25	MC-G
Appearance	White powder	White powder	White granule
MCA,%	≥99.5	≥99.5	≥99.5
Residue cyanuric acid,%	≤0.2	≤0.2	≤0.2
Residue melamine,%	≤0.2	≤0.2	≤0.2
Decomposition temperature	≥ 350	≥ 350	≥ 350
Whiteness	≥ 95	≥ 95	--
Moisture,%	≤0.2	≤0.2	≤0.2
PH value	5.0-7.0	5.0-7.0	5.0-7.0
Density, g/cm <sup>3</sup>	1.60-1.70	1.60-1.70	--
Particle size(D50), um	≤1.5	≤2.5	--

### Application:

MCA is especially suitable for PA6 and PA66 without filler. PA6 and PA66 with MCA can pass the tests of UL 94 V-0 (0.75mm), GWFI 960°C and GWIT 750°C.

It can be used as flame retardant in wires and cables made from TPU, pipe made from polyamide and epoxy sealant, etc. It can meet high surface requirement of wires and cables.

### I. Recommended usage in PA66/PA6

Type	Dosage in PA6	Dosage in PA66	Flame Retardancy UL 94	
Un-reinforced system	10% -14 %	8%-12%	UL 94 V-0 (1.5mm, 3.0mm)	GWFI 960°C (3.0mm)
Mineral filling system	13%-15 %	13%-15%	UL 94 V-2 (1.5mm, 3.0mm)	GWFI 960°C (3.0mm)
10%-15% glass fiber reinforced system	11%-16 %	10%-15%	UL 94 V-2 (1.5mm, 3.0mm)	GWFI 960°C (3.0mm)



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## II. Recommended usage in TPU/TPE & EP

Substrate	Usage	Flame Retradancy
TPU/TPE	MC15/MC25/MC-G + Organic hypophosphate/phosphonate	VW-1
EP	MC15/MC25/MC-G + APP801H + ATH	UL 94 V-0 (3.0 mm)

### Packing :

20kg paper bag with PE inner bag.

It is not dangerous cargo .You should handle the material according to the instruction described on MSDS.The MSDS is available from sales department once required.Our regular mark is printed on the surface of package in advance .You should inform our sales person in advance If you don't need this or have any special demand for mark.

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