



Technical Data Sheet

ProFlame® PN1683

Product Name: Melamine polyphosphate (MPP)

CAS NO.: 218768-84-4

Molecular Formula: HO(C₃H₇N₆PO₃)_nH

PN1683 flame retardant decomposes endothermically above 350 °C, acting as a heat sink to cool the polymer. The released phosphoric acid further reacts with the polymer to form a char and inhibit the release of free radical gasses into the oxygen phase. Simultaneously, nitrogen species released from the degradation of melamine intumesces the char to further protect the polymer.

PN1683 flame retardant was originally developed to suit the high processing temperatures associated with the compounding of glass fiber reinforced thermoplastics. It is mainly used in thermosetting resins such as glass-fiber reinforced polyamide, TPE, epoxy, phenolic, unsaturated polymers, etc., as well as other applications by combining with synergists.

Specification:

Appearance	White crystalline powder	
Nitrogen content, %	42.0-44.0	
Phosphor content, %	12.0-14.0	
Moisture, %	≤0.3	
PH Value 10g/L	4.0-6.0	
Decomposing point, °C	1%	≥355
	5%	≥385
Average grain size, um	D50	≤3.0
	D98	≤25

Package & Storage

25kg paper bag with PE inner bag.

Should be stored in dry and ventilated storeroom. This product is non-dangerous.

For other operations, please refer to SDS instructions provided by the manufacturer.

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