



Plastic & polymer additives and solution supplier  
E:info@novistagroup.com I : www.novistagroup.com

# Technical Data Sheet

## ProFlame® PNPO-G3

**PNPO-G3** is a halogen-free flame retardant , which develops its effectiveness through phosphorus / nitrogen synergism. When incorporated into thermoplastics, which can meet the requirement of UL94-V0(0.75-1.6mm), GWIT 750°C, GWFI 960°C .Meanwhile ,PNPO-G3 can pass 70°C\*168hrs water immersion test (UL746C) and meet ROHS and REACH environmental regulations .

In glass fiber reinforced PP system, the flame retardant efficiency of PNPO-G3 is 8-10% higher than ADEKA FP-2500S, so the dosage can be reduced by about 2%, which has less effect on mechanical property and lower cost.

### Benefits

- Compared with bromine-antimony flame retardant, the product density is lower and the comprehensive cost of formula is lower
- With high thermal decomposition temperature , excellent heat aging resistance and excellent UV stability, it can adapt to a wide range of processing technology and application
- Compared with traditional ammonium polyphosphate flame retardant, it has excellent water resistance
- Low smoke density and low smoke gas corrosivity, good recyclability

### Technical Data

Items	Spec
Appearance	White free-flowing powder
Phosphorus content, %	19-22
Nitrogen content, %	17-20
1% TGA Temperature, °C	≥260
Average particle size, um	≤10
Whiteness	≥90
PH Value(10% suspension in water at 25°C)	3-5
Bulk density,g/cm <sup>3</sup>	0.35-0.55

### Recommended dosage

Polymer	Usage guide
<b>PP with 30%GF</b>	UL94 V-0(1.5mm) - 20-21wt% UL94 5VA(2.0mm) - 28-30wt%
<b>PP</b>	UL94 V-0(1.6mm) - 18-20 wt% with 0.2% PTFE UL94 V-0(1.6mm) - 25 wt% without PTFE UL94 5VA(2.0mm) - 30-35 wt%
<b>LDPE &amp; EVA</b>	UL94 V-0(1.5mm) - 24-26 wt% (with 0.2% PTFE) UL94 V-0(1.5mm) - 28 wt% (without PTFE)
<b>HDPE</b>	UL94 V-0(1.6mm) - 30-35 wt%
<b>TPE</b>	UL94 V-0(2.0mm) - 32-35 wt%



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**Package & Storage:**

Net weight 25KG composite paper bag.

Minimum shelf life is 12 months stored in a dry and ventilated warehouse.

+86-536-8206760 [info@novistagroup.com](mailto:info@novistagroup.com) [www.novistagroup.com](http://www.novistagroup.com)

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