

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

Technical Data Sheet ProFlame® EFBPP101

EFBPP101 is low halogen flame retardant with phosphorus-nitrogen-bromine(bromine content < 900 pmm). Comparing with traditional bromine flame retardants, EFBPP101 is lower dosage, not separate out and don't need to add Sb2O3. With EFBPP101 the formula can reach UL94 - V2 (0.75-3.0mm), and pass GWIT 750 $^{\circ}$ C and GWFI 850 $^{\circ}$ C testing.

Benefits

- Low halogen (bromine content < 900 pmm)
- Low dosage and high efficient (dosage 0.8-3.0phr for UL94-V2)
- excellent aging resistance
- · low density
- Low smoke density and low smoke gas corrosivity

Technical Data

i common Bata	
Items	Spec
Appearance	White free-flowing powder
P content, %	18-20
Particle size D50, um	≈8
Density,g/cm3	1.65-1.75
Volatile,%	≤0.5
Whiteness	≥90

Recommended dosage

Polymer	НОМО-РР	CO-PP
EFBPP101 Dosage,%	0.8-1.0	2.5-3.0
Filler dosage,%	0-20	0-15
UL-94	V-2	V-2
GWFI 850°C	Pass	Pass
GWIT 750°C	Pass	Pass

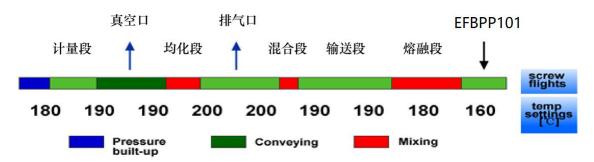
Processing precautions

- Together with bromine-antimony system or carbon black, flame retardant efficiency will be poor.
- Do not add calcium carbonate as filler.
- It is recommended to use screw assembly with weak shear.



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

Processing instruction:



Package & Storage:

Net weight 25KG Kraft bag with PE liner.

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

+86-536-8206760 info@novistagroup.com www.novistagroup.com

The information presented herein is believed to be accurate and reliable, but is presented without guarantee or responsibility on the part of Novista Group and its subsidiaries. It is the responsibility of the user to comply with all licable laws and regulations and to provide for a safe workplace. The user should consider any health or safety hazards or information contained herein only as a guide, and should take those precautions which are necessary or prudent to instruct employees and to develop work practice procedures in order to promote a safe work environment. Further, nothing contained herein shall be taken as an inducement or recommendation to manufacture or use any of the herein materials or processes in violation of existing or future patent.

Materia OVI	STA ormula 1	Formula 2	Formula 3	Formula 4
Hpm:0cRPpolymer additive	s and sol റ്റര് n supplie	r 867	250	150
E:info@novistagroup.com	: www.novistagroup.c	om		
Co-PP	0	0	715	715
EFBPP101	28	28	30	30
EBS	2	2	2	2
Antioxidant 1010	1	1	1	1
Antioxidant 168	2	2	2	2
Talc	0	100	0	100

Properties 1-2

Item	Testing method	Unit	Homo-PP	Co-PP	Formula1	Formula2	Formul3	Formul4
Density	ASTM D-792	g/cm3	0.89	0.90	0.89	0.99	0.90	1.00
MFI 230℃, 21.6kg	ASTM D-955	g/10min	11.0	8.5	12.0	15.5	10.5	12.0
Tensile Strength	ASTM D-638	Мра	34.0	26.0	33.0	34.0	26.0	25.0
Flexural Strength	ASTM D-790	Мра	36.0	28.0	36.0	45.0	29.0	36.0
Flexural modulus	ASTM D-790	Мра	1400	950	1500	2100	1000	1450
Notch impact strength	ASTM D-256	J/m	28.0	80.0	27.0	24.0	75.0	55.0
	UL94	1.5mm	NG	NG	NG	V-2	V-2	V-2
		3.0mm	NG	NG	NG	V-2	V-2	V-2
	UL94	1.5mm	١	١	V-2	V-2	V-2	V-2
	(120°C,7days)	3.0mm	١	١	V-2	V-2	V-2	V-2
	UL94	1.5mm	١	١	V-2	V-2	V-2	V-2
	(120°C,7days)	3.0mm	١	١	V-2	V-2	V-2	V-2
Flame Resistance	UL94	1.5mm	١	١	V-2	V-2	V-2	V-2
	(120°C,7days)	3.0mm	\	\	V-2	V-2	V-2	V-2
	GWIT	3.0mm	NG	NG	750 ℃	750 ℃	750 ℃	750 ℃
	GWFI	3.0mm	NG	NG	850℃	850℃	850℃	850℃



根头 1 22/22 2 22/22 3 22/22 4 22/22 5 22/22 6 32/32 7 48/48 8 48/48 9 12/12L 10 30°/7/48 11 32/32 12 32/32 13 32/32 14 32/32 15 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 20 48/48 20 48/48 20 48/48 21 48/ 8 21 48/ 8 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32 27 45°/5/32	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	56/56 56/56 56/56 56/56 72/72 96/96 96/96 96/96 45°/5/36L 60°/4/56 45°/5/56 56/56 90°/5/56 45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5/5/56 5/5/56 5/5/56	392mm 真空口
2 22/22 3 22/22 4 22/22 5 22/22 6 32/32 7 48/48 8 48/48 9 12/12L 10 30°/7/48 11 32/32 12 32/32 13 32/32 14 32/32 15 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 20 48/48 20 48/48 21 48/8 21 48/8 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	56/56 56/56 72/72 96/96 96/96 96/96 45°/5/36L 60°/4/56 45°/5/56 56/56 56/56 90°/5/56 45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96	真空口
3 22/22 4 22/22 5 22/22 6 32/32 7 48/48 8 48/48 9 12/12L 10 30°/7/48 11 32/32 12 32/32 13 32/32 14 32/32 15 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 20 48/48 21 48/8 21 48/8 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	56/56 72/72 96/96 96/96 96/96 96/96 45°/5/36L 60°/4/56 45°/5/56 56/56 56/56 90°/5/56 45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5/56 72/72 96/96 90°/5/56	真空口
4 22/22 5 22/22 6 32/32 7 48/48 8 48/48 9 12/12L 10 30°/7/48 11 32/32 12 32/32 13 32/32 14 32/32 16 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 20 48/48 21 48/8 21 48/8 21 48/8 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	72/72 96/96 96/96 96/96 45°/5/36L 60°/4/56 45°/5/56 56/56 56/56 90°/5/56 45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96 90°/5/56	
5 22/22 6 32/32 7 48/48 8 48/48 9 12/12L 10 30°/7/48 11 32/32 12 32/32 13 32/32 14 32/32 16 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 20 48/48 21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 26 45°/5/32	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	96/96 96/96 96/96 45°/5/36L 60°/4/56 45°/5/56 56/56 56/56 90°/5/56 45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 90°/5/56	
6 32/32 7 48/48 8 48/48 9 12/12L 10 30°/7/48 11 32/32 12 32/32 13 32/32 14 32/32 16 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 20 48/48 21 48/8 21 48/8 21 48/8 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	96/96 96/96 45°/5/36L 60°/4/56 45°/5/56 56/56 56/56 90°/5/56 45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96 90°/5/56	
7 48/48 8 48/48 9 12/12L 10 30°/7/48 11 32/32 12 32/32 13 32/32 14 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 20 48/48 21 48/8 21 48/8 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	96/96 45°/5/36L 60°/4/56 45°/5/56 56/56 56/56 90°/5/56 45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96 90°/5/56	
8 48/48 9 12/12L 10 30°/7/48 11 32/32 12 32/32 13 32/32 14 32/32 16 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 20 48/48 21 48/ 8 21 48/ 8 21 48/ 8 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	45°/5/36L 60°/4/56 45°/5/56 56/56 56/56 90°/5/56 45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5/56 72/72 96/96 90°/5/56	1320mm
9 12/12L 10 30°/7/48 11 32/32 12 32/32 13 32/32 14 32/32 16 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 20 48/48 21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	45°/5/56 56/56 56/56 90°/5/56 45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96 90°/5/56	1320mm
10 30°/7/48 11 32/32 12 32/32 13 32/32 14 32/32 15 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 20 48/48 21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	56/56 56/56 90°/5/56 45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96 90°/5/56	1320mm
11 32/32 12 32/32 13 32/32 14 32/32 15 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	13 14 15 16 17 18 19 20 21 22 23 24 25 26	56/56 90°/5/56 45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96 90°/5/56	1320mm
12 32/32 13 32/32 14 32/32 364mm 15 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 20 48/48 21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	14 15 16 17 18 19 20 21 22 23 24 25 26	90°/5/56 45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96 90°/5/56	1320mm
13 32/32 14 32/32 364mm 15 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	15 16 17 18 19 20 21 22 23 24 25 26	45°/5/56 56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96 90°/5/56	1320mm
14 32/32 364mm 15 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	16 17 18 19 20 21 22 23 24 25 26	56/56 72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96 90°/5/56	1320mm
15 32/32 16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48	17 18 19 20 21 22 23 24 25 26	72/72 45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96 90°/5/56	1320mm
16 32/32 17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	18 19 20 21 22 23 24 25 26	45°/5/36L 90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96 90°/5/56	1320mm
17 45°/5/32 18 45°/5/32 19 48/48 20 48/48 21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	20 21 22 23 24 25 26	90°/5/56 60°/4/56 45°/5/56 5 /56 72/72 96/96 90°/5/56	1320mm
18 45°/5/32 19 48/48 20 48/48 21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	21 22 23 24 25 26	45°/5/56 5 /56 72/72 96/96 90°/5/56	
19 48/48 20 48/48	22 23 24 25 26	5 /56 72/72 96/96 90°/5/56	
20 48/48 玻纤口 21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	23 24 25 26	72/72 96/96 90°/5/56	
21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	24 25 26	96/96 90°/5/56	
21 48/8 (封闭) 22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	25 26	90°/5/56	
22 22/22 23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32	26		
23 45°/5/32L 24 22/22 25 22/22 26 45°/5/32			
24 22/22 25 22/22 26 45°/5/32	27	45°/5/56	
25 22/22 26 45°/5/32	28	56/56	
26 45°/5/32	29	72/72	
	30	72/72	玻纤口(封闭)
13 13132	31 32	56/28L 45°/5/56	
28 22/22	33	45°/5/96	
29 22/22	34	56/56	
30 32/32 480mm	35	56/56	1
31 45°/5/32 480mm	36	72/72	
	37	45°/5/56	
32 30°/7/48	38	45°/5/96	1132mm
33 22/22 34 22/22	39	56/56	-
	40 41	56/56 72/72	-
35 22/22	42	72/72	1
36 32/32	43	72/72	1
37 32/32	44	96/96	1
38 32/32	45	96/96	
39 48/48 40 48/48 进料口	46 47	96/96 96/96	

注:75 机螺杆组合剪切比较强,且长径比高,可以根据具体加工情况调整上述螺杆组合。