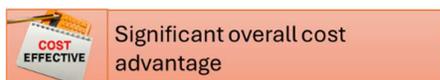


FLAME RETARDAND: FRX – A302

Description

FRX-A302 is an antimony-free flame retardant developed using advanced polymerization technology to enhance the char-formation capability of polymers. When used in combination with brominated flame retardants, it delivers effective flame retardant performance. In ABS formulations, 1.7–1.8 PHR of FRX-A302 can replace 1 PHR of Sb_2O_3 , achieving equivalent flame retardancy without compromising mechanical or electrical properties.



Technical Data

Property	Unit	Typical Value
Appearance	N/A	White Powder
Moisture	wt /%	≤ 1.0
Whiteness	%	≥ 95
Particle Size	μm	≤ 10.0



Typical Applications: ABS as an Example

FR-FS12 at a 1:1 replacement ratio and FRX-A302 at a 5:3 ratio relative to Sb_2O_3 deliver equivalent flame retardancy and comparable mechanical properties.

Components	Sb_2O_3 (wt %)	FR-FS12 (wt %)	FRX-A302 (wt %)
ABS	77.4	77.4	75.3
Bromotriazine	14	14	14
Sb_2O_3	3	-	-
FR-FS12	-	3	-
FRX-A302	-	-	5.1
168	0.2	0.2	0.2
1010	0.2	0.2	0.2
Anti-dripping Agent	0.2	0.2	0.2
High Glue Powder	5	5	5
Total	100	100	100

Property	Testing Protocol	Unit	Performance Results		
Tensile Strength	GB/T 1040-06	MPa	41.92	41.62	41.49
Flexural Modulus	GB/T 9341-08	MPa	2329	2378	2233
Notch Impact Strength	GB/T 1803-1-08	kJ/M ²	18.56	18.35	18.88
Flame Resistance	UL94	0.8 mm	V-0	V-0	V-0
	T1+T2	S	23.5	24.1	22.8

Disclaimer

The property values presented herein are typical values and are not to be interpreted as specification limits. The information in this document is believed to be accurate and reliable as of the date of publication; however, it is provided for general guidance

鑫泰合化工（广东）有限公司

SINTAH CHEMICALS (GUANGDONG) COMPANY LIMITED

工厂地址: 广东省河源市东源县仙塘镇蝴蝶岭汇通工业园

总部: 广州市黄埔区瑞吉二街 49 号京广协同创新中心 1 栋主楼 13 楼

Factory: Hudieling Industrial Park, Heyuan, Guangdong, China

Headquarters: 13/F, Building 1, Jingguang Collaborative Innovation Center, Guangzhou, China.

enquiry@sintahchemicals.com <https://www.sintahchemicals.com>



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