

FLAME RETARDAND: H001

Description

H001 is widely applicable as a flame retardant for homopolymer PP and copolymer PP with low ethylene content ($\leq 8\%$). It requires a low dosage (1–2 wt%), does not need additional antimony trioxide, and allows for the inclusion of 10–20% inorganic fillers such as talc or barium sulfate. It is non-halogen-free flame retardants. During combustion, dripping may occur, and the material achieves a UL94 V-2 rating.

Technical Data

Test Item	Testing Protocol	Unit	Homopolymer PP	Copolymer PP with Low Ethylene Content ($\leq 8\%$)
			(1.0-2.0% H001)	(2.0-3.0% H001)
Density	ISO 1183	g/cm ³	0.91	0.91
Melt Flow Rate	ISO 1133	g/10min	13.5	12.1
Tensile Strength	ISO 527	MPa	32	26
Elongation at Break	ISO 527	%	50	80
Flexural Modulus	ISO 178	MPa	1400	1250
Flexural Strength	ISO 178	MPa	36	32
Notched Impact Strength	ISO 180	kJ/m ²	3.5	8
Flame Retardancy (3.20 mm)	UL94	N/A	V-2	V-2
Flame Retardancy (1.60 mm)	UL94	N/A	V-2	V-2



Processing Precautions

- Avoid adding calcium carbonate filler, as it may negatively affect the flame-retardant performance.
- Precise temperature control of equipment is essential. Local overheating can cause flame retardant volatilization, reducing its effectiveness. Recommended processing temperature: 170–180 °C.
- Use a low-shear screw configuration to prevent excessive shear that could lead to material degradation.

Disclaimer

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Regulatory Notes

This product is manufactured in compliance with applicable regional chemical control regulations. Regulatory status may vary

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by jurisdiction, and users should verify compliance with local requirements prior to use. Certification for specific applications (such as food contact, potable water, medical, or electrical uses) is not implied and must be confirmed separately upon request. Users are responsible for ensuring that the product, its additives, and any processing aids meet all relevant regulatory and end-use obligations.

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