

FLAME DEFENSE SERIES FD440

Typical Physical Properties

Color	white to off-white
Specific Gravity	2.83
Median Particle Size (microns)	2-3
99% Less Than (microns)	25
Decomposition Temp.	>550°F (>290°C)

An antimony free inorganic synergist for halogenated flame retardant systems. FD440 can allow the formulator to significantly reduce the antimony trioxide level in a formula while providing equivalent performance at a reduced cost. This product is applicable to PVC, CPE, and a wide range of polymer systems where the flame retardant is bromine or chlorine based.

PVC Wire & Cable Jacket Example		
Formulation Ingredient	Control	FD440
PVC Resin	100	100
DINP	45	45
Ca-Zn stabilizer	6	6
Stearic Acid	0.3	0.3
ATH	60	60
Antimony Trioxide Synergist	5	2.2
FD440 Synergist	0	2.8
Limiting Oxygen Index %	35	35
Peak Heat Release Rate (kW/m ²)	182.8 ± 17.3	154.2 ± 6.4
Total Heat Release (MJ/m ²)	31.8 ± 9.5	33.7 ± 6.5
Ignited Y/N	Y	Y

The use of cost effective FD440 to replace antimony trioxide can dramatically reduce your synergist cost.

For further guidance it is recommended that customers contact the R.J. Marshall Company to discuss their specific recipes.

HEALTH AND SAFETY: Refer to the Safety Data Sheet

PACKAGING: 50 lb plastic bags, pallet weight 2500 lbs.

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