Hanwha Solutions

CPVC Compound (Fire Sprinkler Systems) HCM-FP102

1. General Properties

HCM-FP102 is a compound for fire sprinkler CPVC pressure pipes. CPVC resin is blended with additives such as heat stabilizers and impact modifiers for use in extruders to manufacture pipes. HCM_FP102 presents especially excellent fire retardant characteristics and impact strength at low temperatures.

HCM-FP102 has the following outstanding characteristics:

- ▶ Mechanical Properties (Tensile, Bending, Hydrostatic Pressure Endurance)
- ▶ Processability (Long-Term Heat Stability, Steady Processing Conditions)
- ▶ Safety (Absence of Lead, Mercury, Cadmium, Phthalates, and other Hazardous Materials)
- ▶ Impact Strength at Low Temperatures
- ▶ Flame Resistance (Oxygen Index)

2. Applications

HCM-FP102 is an extrusion compound that can be used for the manufacture of pipes that require high flame resistance and hydrostatic pressure endurance, such as fire sprinkler pipes.

- ▶ Pressure Pipes for fire sprinkler (Fire Retardant, Hydrostatic Pressure Endurance)
- ▶ Other non-plasticized products requiring flame resistance (Flame Resistant Plates, etc.)

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3. Powder Properties (HCM-FP102)

Property	Unit	Typical Value	Test Method
Resin Chlorine Content	%	67.3 ± 0.5	Oxygen Flask
Compound Chlorine Content	%	> 57.3	Oxygen Flask
Compound Form	-	Powder	-
Color	-	Orange	-
Bulk Density	g/cm³	0.58 ± 0.04	ASTM D792
Ash Content	%	< 6	ASTM D5630

4. Physical Properties (HCM-FP102)

Property	Unit	Typical Value	Test Method
Density	g/cm^3	1.50 ± 0.05	ASTM D1505
Opacity	%	Less than 0.02	ASTM D1746
Tensile Strength	kgf/cm^2	570 ± 30	ASTM D638
Izod Impact Strength	kgf·cm/cm	32 ± 5	ASTM D256

5. Storage, Packaging, and Safety

Storage

HCM-FP102 should be stored in dry conditions at room temperatures below 25˚C.

Packaging

Hanwha Solutions Corporation provides its customers with a product specific Material Safety Data Sheet (MSDS) that underlines potential health effects and safe handling, use, and transportation methods. Hanwha Solutions Corporation strongly encourages its customers to review the MSDS prior to material use. HCM-FP102 is normally supplied as a pellet in a 25kg paper bag with a polypropylene woven bag insert and polyethylene liner, or jumbo bag.

Safety

HCM-FP102 is not formulated to contain any hazardous or regulated materials such as lead, cadmium, mercury, and chromium compounds. No hazardous or regulated materials are used during the manufacturing process of this material.

General Information

The data and recommendations contained in this document represent the current state of our knowledge and serve only as a guide to our products and their potential applications. Therefore, no warranty of specific property mentioned herein, or of its suitability or fitness for a particular purpose, is implied. Further information and recommendations for processing can be obtained from our technical support staff and representatives.