Hanwha Solutions

CPVC Compound (Industrial piping system-Pipe) **HCM-IP101**

1. General Properties

HCM-IP101 is a compound for CPVC industrial piping system. CPVC resin is blended with additives ideal for industrial purpose and environment especially, and for use in extruders to manufacture durable pipes. HCM-IP101 satisfies ISO 15877-1 and ISO 15877-2 international standards.

HCM-IP101 has the following outstanding characteristics:

- ▶ Chemical-Resistance (Inert to most mineral acid, aliphatic hydrocarbons, bases and salts)
- ▶ Mechanical Properties (Tensile, Bending, Hydrostatic Pressure Endurance)
- ▶ Thermal Characteristics (Low thermal conductivity, Heat Deflection Temperature)
- ▶ Processability (Long-Term Heat Stability, Steady Processing Conditions)
- ▶ UV-Protective (Addition of Carbon black and Titanium dioxide)
- ▶ Safety (Absence of Lead, Mercury, Cadmium, Phthalates, and other Hazardous Materials)

2. Applications

HCM-IP101 is an extrusion compound that can be used for the manufacture of pipes that require transporting aggressive chemical solutions at high temperature and pressure without corrosion concerns.

- ▶ Pressure Pipes for industrial piping system (Production facilities, Chemical processing industry, Waste water treatment, Industrial manufacturing, Blending operations, Marine, etc.)
- ▶ Other applications requiring chemical, flame and corrosion resistance (Sheet, Plates, etc.)

3. Powder Properties (HCM-IP101)

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	-	Gray	-
Bulk Density	g/cm³	0.62 ± 0.05	ASTM D 1895
Ash Content	%	< 5	ASTM D 5630

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4. Physical Properties (HCM-IP101)

Property	Unit	Typical Value	Test Method
Cell Classification	-	24557	ASTM D 1784
Density	g/cm^3	1.50 ± 0.05	ASTM D 1505
Opacity	%	< 0.02	ASTM D 1746
Vicat Softening Temperature	°C	115 ± 3	ASTM D 1525
Burning rate	-	Self-extinguish	ASTM D635
Modulus of elasticity tensile	kg_f/cm^2	27500 ± 500	ASTM D 638
Tensile Strength	kg_f/cm^2	560 ± 30	ASTM D 638
Izod Impact Strength	kg·cm/cm	30 ± 5	ASTM D 256
Limited oxygen index	%	60	ASTM D2863-70

5. Storage, Packaging, and Safety

Storage

HCM-IP101 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-IP101 is normally supplied as a powder in a 25kg paper bag with a polypropylene woven bag insert and polyethylene liner, or jumbo bag.

Safety

HCM-IP101 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.