AQUABOND
Chemistry for Tomorrow

Technical Data Sheet

Aqua PAC – Polyaluminum Chloride (PAC)

Product Description

Aqua PAC is a high-performance Polyaluminum Chloride coagulant engineered for superior clarification in municipal and industrial water treatment. Its elevated basicity, high molecular weight, and strong cationic charge density enable rapid coagulation, reduced sludge generation, and improved removal of suspended solids, organic matter, phosphates, oils, and metals. Aqua PAC is a reliable aluminum based precipitant with superior performance due to higher molecular weight and ionic charges (polymeric structure) than traditional alum. Aqua PAC is especially designed to achieve extremely high levels of Turbidity removal.

Typical Properties

Parameter	Liquid Grade	Powder Grade
Appearance	Clear to pale yellow liquid	Light yellow powder
Al_2O_3 Content	10–18% (typical)	28–30%
Basicity	40–85% depending on grade	60–90%
Specific Gravity	1.18–1.22	—
pH (1% solution)	3.5–5.0	3.5–5.0
Solubility	Fully soluble	Fully soluble
Odour	Odourless	Odourless

Performance Characteristics

Rapid destabilization of colloidal particles
Strong floc formation with excellent settling
Effective across a wide pH range (4–11)
Lower alkalinity consumption vs alum
Up to 40% lower sludge volume
Excellent cold-water performance
Compatible with most cationic and non-ionic polymers

Applications

Municipal

Drinking water clarification
Surface water treatment
Wastewater polishing
NOM and colour removal

Industrial

Food & beverage effluent

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Industrial

Mining and mineral processing
Pulp & paper whitewater
Oil & gas produced water
Chemical manufacturing wastewater
Textile, dye, and pigment removal

Dosage Guidelines

Application	Typical Dose
Municipal drinking water	10–60 mg/L
Surface water with high turbidity	30–120 mg/L
Industrial wastewater	50–250 mg/L
Phosphate removal	1.5–2.5 mol Al per mol PO_4
Oil & grease removal	80–200 mg/L

Exact dosage should be determined by jar testing.

Handling & Storage

Store between 5–35°C
Protect from freezing
Use corrosion-resistant materials (HDPE, FRP, and PVC)
Shelf life: 12 months (liquid), 24 months (powder)

Regulatory

NSF/ANSI 60 (if applicable)
AWWA B408 compliant
REACH compliant (if applicable)

Packaging

25 kg UN Tight head
250 kg UN Drum
1250 kg UN Tote
25 kg powder bags
Case of 4 × 20 kg jugs