

# **TECHNICAL SPECIFICATION FOR CATIONIC POLYACRYLAMIDES**

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# 1. Technical Specification for Cationic Polyacrylamides

## 1.1 General requirements

Specification for cationic polyacrylamides for wastewater sludge treatment.

- |                            |   |
|----------------------------|---|
| 01. Appearance             | - Granular  |
| 02. Color                  | - White / Off White   |
| 03. Water Solubility       | - The product is soluble in cold Water. It's solubility is limited only by viscosity, with a gel being formed at concentration of approximately 20 g/l and above. |
| 04. Charge in the solution | - Cationic  |
| 05. Bulk density           | - 0.5 g/cm <sup>3</sup> to 0.8 g/cm <sup>3</sup>  |
| 06. Purity                 | - Active polymer content shall be >90%.<br>Acrylamide monomer < 1000mg/kg   |

The cationic polyacrylamides covered under this specification shall be of use in treatment of sewage and industrial sludge.

Cationic polyacrylamides soluble in water producing solution of high viscosity, used for sludge dewatering processes.

## 1.2 Packing

This material shall be supplied in 25 Kg Bags / Containers should be lined with polythene or with Teflon layer.

## 1.3 Storage

For six months

## 1.4 Marking

Each package shall be marked legibly & indelibly with the following information. (Letter height shall be 50 mm)

- Name of the product
- Name and address of the manufacturer and local agent.
- Trade mark
- Net mass, in Kg
- Type and Grade
- Employer's Name as "NWSDB"
- Storage condition

## **1.5 Material quality test**

Material quality test shall be as per 1.1 above.

## **1.6 Method of Test**

### **1.6.1 Performance test**

Polymer performance shall be decided by a JAR test. The parameters tested for during jar test shall be Turbidity removal, Color removal and the required polymer dose.

### **1.6.2 Quality test**

A test report on active polymer content and monomer content based on HPLC method in accordance with BSEN 1410: 2008 preferably from an accredited laboratory from the country of origin shall be provided by the supplier.

## **1.7 Conformity to Specifications**

A lot shall be declared as conforming to the requirements of this specification, if the following conditions are satisfied.

1.7.1 Packaging & marking requirements shall be as per 6.2 & 6.3.

1.7.2 The test results on test sample when tested as in 6.6 satisfy the relevant requirements.

1.7.3 Samples do not satisfy relevant requirements will be rejected.

## **1.8 Age of Polymer**

Polymer to be supplied shall be new and the age from the date of manufacture shall not be more than 02 months when shipping.

## **1.9 Handling polymer**

As the polymers are hygroscopic they shall be handed carefully during packaging, transport, storing and application.

## **1.10 Supplier shall provide the following information**

1. Material safety data sheet (MSDS)
2. Instructions for handling, transporting, storing and dosing for waste water applications.
3. Maximum dose with respect to safety in waste water treatment application
4. Test report accordance with Clause 1.6.2 from the country of origin preferably from an accredited laboratory on the percentage of monomer present.