**TECHNICAL SPECIFICATION FOR**

**CATIONIC POLYACRYLAMIDES**

**Revised on 15.03.2024**

# TABLE OF CONTENTS

1. Technical Specification for Cationic Polyacrylamides 6aw - 2

1.1 General requirements 6aw - 2

1.2 Packing 6aw - 2

1.3 Storage 6aw - 2

1.4 Marking 6aw - 2

1.5 Material quality test 6aw - 3

1.6 Method of Test 6aw - 3

1.6.1 Performance test 6aw - 3

1.6.2 Quality test 6aw - 3

1.7 Conformity to Specifications 6aw - 3

1.8 Age of Polymer 6aw - 3

1.9 Handling polymer 6aw - 3

1.10 Supplier shall provide the following information 6aw - 3

**1. Technical Specification for Cationic Polyacrylamides**

* 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/cm3 to 0.8 g/cm3

06. Purity - Active polymer content shall be >90%.

 Acrylamide monomer < 200mg/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. Packing

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

* 1. Storage

For six months

* 1. Marking

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

a) Name of the product

b) Name and address of the manufacturer and local agent.

c) Trade mark

d) Net mass, in Kg

e) Type and Grade

f) Employer’s Name as “NWSDB”

g) Storage condition

* 1. **Material quality test**

Material quality test shall be as per 1.1 above.

Revised on 15.03.2024

* 1. **Method of Test**
		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. **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. **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. **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. **Handling polymer**

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

* 1. **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.

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