



**NORTH METAL & CHEMICAL COMPANY**  
*World Class Molybdenum & Tungsten Compounds*  
 Since 1921

POLYMER

NORTHQUEST 3100 - Technical Data Sheet

# Technical Bulletin

## NORTHQUEST 3100

**About us.....**

- Founded in York, PA in 1921, NM&C remains a financially stable, family owned producer of *World Class Molybdenum & Tungsten compounds* serving the Metal Finishing, Agriculture, Water Treatment, Pigment, and Antifreeze markets worldwide.
- NM&C maintains over \$2 million inventory of finished goods and ore concentrates to guarantee our customers a stable and secure source of molybdate in the event of a crisis or shortage.
- All orders for one drum to truckload quantities are shipped the next business day or as requested.
- NM&C molybdates are American Made and backed by full 'Cradle-to-Grave' product liability.
- NM&C is unrivaled in customer service and technical support.
- Strict Quality Assurance programs and ISO 9002 practices assure products of the highest quality and consistency.



**Description:** NorthQuest 3100 water treatment terpolymer controls boiler deposits by keeping in suspension more of the harmful foulants that can accumulate in boiler tubes. This highly effective proprietary terpolymer controls both dried iron oxide and the more prevalent and difficult to control hydrate iron oxide in condensate return and well water. NQ 3100 terpolymer contains three functional groups: Strong acid (sulfonate), weak acid (carboxylate), and a nonionic that provide optimal dispersancy for most particulates under a broad range of operating conditions.

**Features:**

- Superior inorganic particulate dispersant for Iron Oxide and Hydroxyapatite
- Thermally and chemically stable
- Excellent calcium phosphate inhibition
- Helps keep surfaces clean for maximum heat transfer and corrosion resistance through effective boiler sludge control.
- Excellent alternative to the higher priced Acumer 3100.

**Technical Specifications:** (AA/AMPS/Non-Ionic Ter-Polymer )

Appearance	Light amber liquid
Solid content	43—44%
Active ingredients	43—44%
Mol. Wt.	4000—5000
pH (1% solution)	2.1—2.6
Density @ 20° C, g/cm <sup>3</sup>	1.15—1.25
Viscosity, mpa.s @ 25° C	100—300
Colour APHA	80 max.

**APPLICATIONS:** NQ 3100 terpolymer is highly resistant to breakdown in aqueous solution under conditions of high temperature, pressure, and pH. Hydrothermal stability studies of NQ 3100 terpolymer in synthetic boiler water show no significant breakdown at 250° C/490° F (600 psig or 42 kg/cm<sup>2</sup>).

**PACKAGING:** Available in 551.15 lb. (250 Kg) drums.

**SAFETY:** Refer to MSDS for precautions.



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