Core Shell® for Water and Wastewater Treatment
The Next Wave of Polymer Technology

Nalco leads the industry in developing innovative technologies for water & wastewater treatment processes – technologies that help our customers reduce cost, increase efficiency, meet increasingly stringent regulatory requirements, and improve finished product quality.

Now, we are introducing Core Shell® polymers – advanced liquid polymer technology that puts us Ahead of the Wave in industrial and municipal water & wastewater treatment markets worldwide.

Core Shell: Better from the start
Core Shell polymers are totally new, proprietary, high molecular weight liquids, and are specifically designed for:

◆ Wastewater treatment
◆ Sludge conditioning
◆ Processing aids in the municipal water and wastewater treatment markets in industrial applications including
  ◆ Papermaking
  ◆ Petroleum refining
  ◆ Mining and mineral processing
  ◆ Food and beverage production

Core Shell polymers show an improved performance profile compared to conventional liquid and dry flocculants.

◆ Unparalleled retention, drainage, and formation performance in papermaking
◆ Requires lower dosages
  ◆ Lower cost
  ◆ Reduced VOC

A 20-50% improvement in polymer efficiency
Core Shell polymers are architecturally modified on the molecular level, providing products with unique solution properties. They are designed to provide high levels of usable polymer in many different applications. Field trials have documented a 20-50% improvement in polymer efficiency! This represents a new definition of liquid polymer performance.

(Continued on Reverse Side)
A large southern U.S. municipal facility desired greater efficiency and lower overall costs in their sludge dewatering processes. The municipality uses centrifuges for sludge dewatering. The sludge is then used as a fertilizer.

After evaluating polymers from six suppliers in two rounds of competitive performance testing on-site, the municipality chose the Nalco Core Shell polymer program, which provides measurable improvement in polymer efficiency, in addition to excellent overall cost performance. The municipality now uses 1500 tonnes of Core Shell polymer annually to replace the competitive latex polymer program previously used.

Complete palette of polymers for water & wastewater treatment
- Anionic and cationic polymers
- Controlled solution properties
- Polymer properties matched to application
- High levels of usable polymer released in application
- Resistant to degradation in high shear applications such as filter presses and centrifuges

Field proven – operator preferred
Core Shell products provide improved polymer efficiency and a substantial ROI to our customers worldwide. Plant operations people are impressed with the high level of performance provided by Core Shell and its ease of use. The features and benefits of these new polymers can be quickly appreciated.

Core Shell Liquids vs. Dry Products
- Ease of mixing and feeding
- More consistent makedown
- No dusting or gelling; less mess
- More competitive cost/ performance
- Less equipment-intensive

On-site follow-up protects your invested capital
Nalco provides extensive support services to our customers through experienced and dedicated Marketing, Research, and Technical Support personnel. These professionals will help you obtain and measure a return on your invested capital by streamlining program installation and startup, including equipment needs, feed points, and storage and handling recommendations.

NALCO COMPANY OPERATIONS
North America: Headquarters – 1601 West Diehl Road • Naperville, Illinois 60563 • USA
Energy Services Division – 7705 Highway 90-A • Sugar Land, Texas 77487 • USA
Europe: Ir. G. Tjalmaweg 1 • 2342 BV Oegstgeest • The Netherlands
Asia Pacific: 2 International Business Park • #03-20 The Strategy Tower 2 • Singapore 609930
Latin America: Avenida das Nações Unidas 17.891 • 6º Andar 04795-100 • São Paulo • SP • Brazil
www.nalco.com

Core Shell, TRASAR, NALCO and the logo are Registered Trademarks of Nalco Company
©2002, 2007 Nalco Company  All Rights Reserved  7-07