



Improved Strength/Weight Ratio

The shift to sheet light-weighting and preservation of natural resources in the board and packaging industry has been a compelling industry trend for decades. Today however, achieving reduced basis weight targets can be a challenge for any papermaker, especially when lower quality fibers are part of the furnish mix.

Use of NALCO Water's METRIX® Dragon technology allows paperboard and packaging manufacturers the ability to increase strength, lower basis weights, enhance production and reduce energy demand.

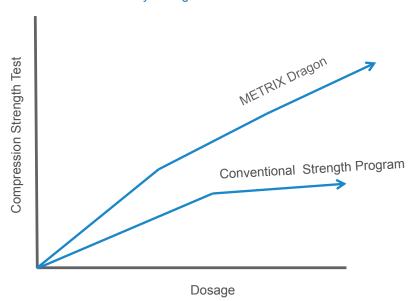
- ♦ Improved Strength/Weight ratio in Cartonboard and Containerboard
- ◆ Improved Productivity & Machine Efficiency
- Reduced Energy Consumption
- ◆ Light-weighting & Fiber Substitution



NALCO Water's METRIX Dragon technology is a synergistic, multifunctional program developed to enhance productivity, table drainage and strength development for paperboard manufacturers.

The program is based on the use of a multi-functional reactive polymer in combination with NALCO' Water's advanced retention and drainage programs.

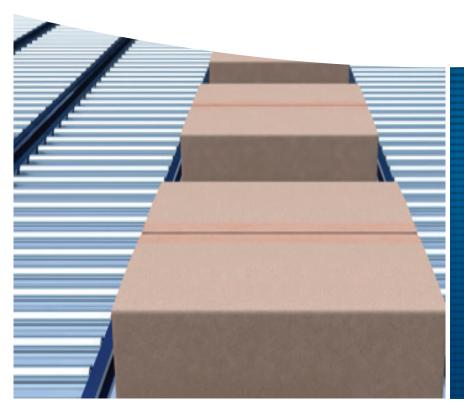
METRIX Dragon Technology impact on Strength in Recycle High Performance Liner



BENEFITS

A METRIX Dragon program is designed to meet the following customer objectives:

- Provides higher strength at lower basis weight
- Enhances sheet drying efficiency resulting in lower steam demand and higher line speed
- Allows for the use of less expensive fibers and higher filler levels
- Allows for less refining and subsequent energy
- Provides consistent strength results
- Minimizes variations in moisture profiles
- Reduces sewer losses and lowers effluent treatment costs as a result of improved fines and additive retention
- Reduces the need for cationic starch due to improved strength and retention



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