



DYADIC INTERNATIONAL, INC.
140 INTRACOASTAL POINT DRIVE, SUITE 404
JUPITER, FLORIDA 33477-5094 USA
561.743.8333 TEL
561.743.8343 FAX
<http://www.dyadic-group.com>

ROCKSOFT™ ACL CONC

Product #109

(Considerations in applications to Denim Garment Wet Processing.)

I. INTRODUCTION:

ROCKSOFT™ ACL CONC is a liquid acid cellulase for use on denim garments and is best run at pH 4.5 to 5.0 and temperature of 55°C – 60°C (131°F – 140°F). **ROCKSOFT™ ACL CONC** is our strongest liquid acid cellulase and has much lower backstaining than traditional acid cellulases.

II. PHYSICAL PROPERTIES:

Appearance: Dark amber liquid (Note that color does not affect or reflect activity.)
Odor: Slight aromatic, not unpleasant
pH (as is): 4.5 ± 0.5
Density: 1.15-1.25
Activity: NLT 2,275 DTU/g

III. PRODUCT CAPABILITIES:

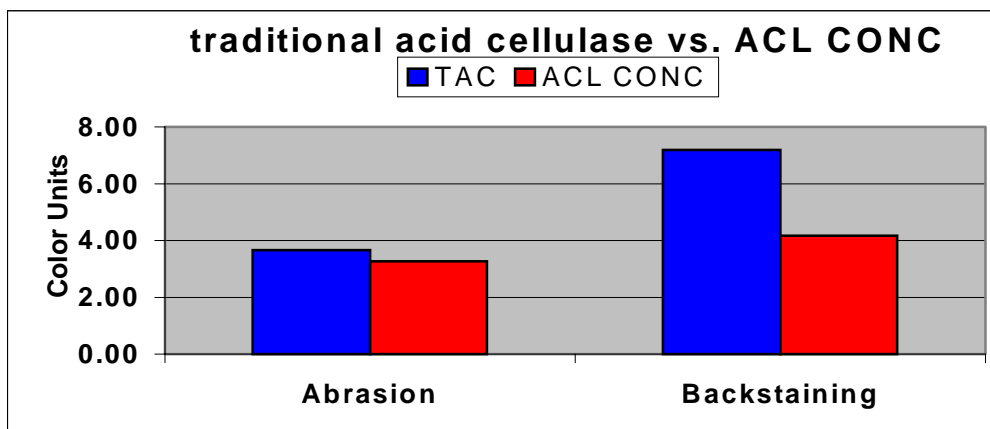
When run as directed in this bulletin, **ROCKSOFT™ ACL CONC** can be utilized to accomplish the following:

1. Increases the "stone wash" effect on rotary washed denim garments when using a significant amount of pumice stones and/or other abrasives.

IV. PROCESSING CONDITIONS: GENERAL

ROCKSOFT™ ACL CONC will function from a pH of 4.5 to 5.5. We recommend an operating pH range of 4.5 to 5.0 with 4.8 as an optimum. Acetic acid based pH controls are preferred over citric and phosphate.

ROCKSOFT™ ACL CONC will function from 45°C – 60°C (113°F – 140°F). We recommend an operating temperature of 55°C - 60°C (131°F – 140°F).



ROCKSOFT™ ACL CONC: Get the abrasion *without* the backstaining.

V. RECOMMENDATIONS FOR USAGE:

Stonewashing:

1. Follow your normal desize and rinse procedures that are currently being utilized. Insure that the bath and garments are at pH 4.5 to 5.0 before starting the low liquor ratio (cellulase) stoning cycle. (This is especially important if you use an alkaline desize.)

2. **ROCKSOFT™ ACL CONC** functions at concentrations from 0.25% to 0.5% OWG. There are occasions where higher concentrations may be used, however, we recommend that you run small trial loads before committing to production.

3. **ROCKSOFT™ ACL CONC** is recommended for use in specialty denim processing in combination with a significant amount of pumice stones. (Not for animal or human consumption).

VI. STORAGE CONDITIONS/ACTIVITY:

ROCKSOFT™ ACL CONC retains more than 90% activity after four months when stored at 25°C (77°F) out of direct sunlight and in the original, closed container. **ROCKSOFT™ ACL CONC** also retains more than 90% activity after 1 month when stored at 38°C (100°F). Do not let freeze.

VII. INACTIVATION:

ROCKSOFT™ ACL CONC can be inactivated by raising the pH above 11 or temperature above 71°C (160°F) or a combination of the two. After the desired effect has been achieved, we recommend inactivating **ROCKSOFT™ ACL CONC** with in the next operating bath.

VIII. PACKAGING:

ROCKSOFT™ ACL CONC is packaged in 240 kg polyethylene drums.

IX. TECHNICAL SERVICE:

Information covering specific applications for this product is available from your Dyadic International, Inc. sales/technical representative. We will work with you to enhance processes and solve problems, in addition to assisting you in achieving the end result/look desired. Call your sales/technical representative for any questions, comments, or help that you need!

Nothing disclosed is to be construed as a recommendation to use our products in violation of any patents. The information presented is believed to be accurate. However, said information and products are offered without warranty or guarantee, except as to the composition and purity stated herein since the ultimate conditions of use and variability of the materials treated is beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale. The goods described herein are sold as is and with all faults. The seller specifically disclaims all warranties in connection with the sale of the goods, both express and implied, including, without limitation, the warranties of merchantability and fitness for any particular purpose, as those terms are defined in the uniform commercial code of Florida. The seller shall not be liable for any incidental or consequential damages whatsoever.