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ROCKSOFT™ BioACE 2X

Product #118

(For considerations in **Biofinishing** Applications)

I. INTRODUCTION:

ROCKSOFT™ BioACE 2X is a liquid acid cellulase enzyme that can effectively be used for biofinishing of cellulosic fabrics. **ROCKSOFT™ BioACE 2X** is designed for use in biofinishing of all cellulosic fabrics including, but not limited to, cotton, rayon, linen, flax, ramie, and Tencel®.

II. PHYSICAL PROPERTIES:

Appearance: Medium to dark amber liquid (Note that color does not affect or reflect activity.)
Odor: Sweet mild fermentation odor
pH (as is): 4.5 ± 1.0
Density: 1.05-1.20
Activity: >4,400 ACU/g

Activity is based on an internal standard and should not be used to compare to other products with different activity units or products with different enzyme components with the same activity units. The activity reported with each lot should only be used to confirm consistency from lot to lot.

III. PRODUCT CAPABILITIES:

When run as directed in this bulletin, **ROCKSOFT™ BioACE 2X** can be utilized to accomplish the following:

1. Reduce the fuzz and pilling, soften and smooth the hand, and increase the gloss/luster and yield a fuller, deeper color by the biofinishing of garments before or during the garment dyeing cycle.
2. Significantly soften 100% cotton fabrics, both woven and knits.
3. Appreciably remove the fuzz and cotton pill balls from garments, sweaters, socks and others as a result of long wet processing or garment dyeing cycles.
4. Biofinishing may be performed in either semi-continuous or batch process.



ROCKSOFT™ BioACE 2X (left) versus competitive acid cellulase (right) at equivalent dosage, time and temperature.

IV. PROCESSING CONDITIONS: GENERAL:

ROCKSOFT™ BioACE 2X will function from a pH of 4.5 to 5.5 with pH 4.8 as an optimum. Acetic acid based pH controls are preferred over citric or phosphate. **ROCKSOFT™ BioACE 2X** will function from 40°C – 60°C (104°F – 140°F).

V. RECOMMENDATIONS FOR USAGE:

Biofinishing/Fuzz Removal:

Liquor to goods ratio: 8:1-15:1, pH: 4.8 (with acetic acid or buffer)
Temperature: 40°C – 60°C (104°F – 140°F), dosage: 0.25 – 2.0% owg
Time: 20 – 45 minutes depending on desired effect

Process Control:

Biofinishing is normally controlled by monitoring the weight loss of the fabric. A weight loss of 3–5% usually reflects a good biofinishing effect without excessive loss of fabric strength.

Higher temperatures, closer to 60°C, are more effective than lower temperatures, but lower temperatures may still give an acceptable biofinishing effect.

Denim Washing:

ROCKSOFT™ BioACE 2X may also be used in denim washing at 0.25-0.75% owg at pH 4.8, 50°C – 60°C, 30 – 45 minutes.

VI. STORAGE CONDITIONS/ACTIVITY:

ROCKSOFT™ BioACE 2X 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™ BioACE 2X** also retains more than 90% activity after 1 month when stored at 38°C (100°F). Do not let freeze.

VII. INACTIVATION:

ROCKSOFT™ BioACE 2X 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™ BioACE 2X** within the next operating bath.

VIII. PACKAGING:

ROCKSOFT™ BioACE 2X is packaged in 220 kg polyethylene drums.

IX. TECHNICAL SERVICE:

Information covering specific applications for this product is available from your Dyadic International (USA) 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!

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