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ROCKSOFT™ACE P150

Product #122

(FOR FORMULATION PURPOSES ONLY.)

I. INTRODUCTION:

ROCKSOFT™ACE P150 is a powdered acid cellulase approximately six and a half times the strength of our liquid acid cellulase, **ACE**, and should be cut with a pH buffer, detergent, and any other desired additive to achieve the same performances as **ACE**.

II. PHYSICAL PROPERTIES:

Appearance: Tan to cream Powder (Note that color does not affect or reflect activity.)

Odor: Slight fermentation odor

pH (1% soln): 4.5±1.0

Activity: ≥153,000 CMC_{case}/g

III. PRODUCT CAPABILITIES:

When run as directed in this bulletin, **ROCKSOFT™ACE P150** can be utilized to accomplish the following:

1. Increases the "stone wash" effect on rotary washed garments when using a significant amount of pumice stones and/or other abrasives.
2. Can desize TMKP sized fabrics alone and aids in desizing other sized fabrics when used in conjunction with a nonionic detergent or amylase.
3. May be used in pre-washing to further increase softening.

IV. PROCESSING CONDITIONS: GENERAL

ROCKSOFT™ACE P150 will function from a pH of 4.5 to 5.5. We recommend an operating pH of 4.5 to 5.0 with 4.8 as an optimum. Acetic acid based pH controls are preferred over citric and phosphate.

ROCKSOFT™ACE P150 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).

If ROCKSOFT™ACE P150 is used as an ingredient in compositions that are used in STONEWASHING applications, these compositions should be used in combination with a significant amount of pumice stones.

The closer the operating parameters are kept to above recommendations, the better the utilization of **ROCKSOFT™ACE P150**. The recommended liquor to goods ratio is 6:25:1 for stone wash applications and 7:1 to 8:1 for softening and fuzz removal.

V. RECOMMENDATIONS FOR FORMULATION:

All formulations should buffer to a pH between 4.5 and 5.0.

All Percentages are on the total weight of the blended product.

ACE P150	4.0% to 25.0% (depending on the strength desired)
TSC:Adipic (3.5:1)	50.0-80.0% (trisodium citrate, adipic acid) for pH 5.0
Abrasive*	5.0% (bone dry pumice or other abrasive like popped perlite)
Detergent**	5.0-40.0% (granulated C12-14 linear nonionic alcohol with EO mole 35 and up)
Wetter***	1.0% (100% solids like Union Carbide 15-S-9)

Example formula for pH 5.0 (products should be added in this order)

TSC	42.5%
Adipic	21.5%
Perlite	5.0%
Detergent	20.0%
Wetter	1.0%
ACE P150	10.0%

For extra protection against moisture regain add desiccant bag in packaging.

VI. STORAGE CONDITIONS:

ROCKSOFT™ACE P150 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™ACE P150 also has less than a 10 activity loss after 1 month when stored at 38°C (100 °F). Do not let freeze.

VII. INACTIVATION:

ROCKSOFT™ACE P150 can be inactivated by raising the pH above 11 or use **DAD** at 2.0% OWG or temperature above 71°C (160°F) or a combination of the two. After the desired effect has been achieved, we recommend inactivating **ROCKSOFT™ACE P150** within the next operating bath.

VIII. PACKAGING:

ROCKSOFT™ACE P150 is packaged in 75 kg fibre 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!

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