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ROCKSOFT™ PLTC

Product #149

(FOR FORMULATION PURPOSES ONLY.)

I. INTRODUCTION:

ROCKSOFT™ PLTC is a concentrated cellulase intended to be used in powdered cellulase blends.

ROCKSOFT™ PLTC has a wide operating range effective from 30°C to 60°C (86°F to 140°F) and a pH range effective from pH 5.5 to pH 6.5. **ROCKSOFT™ PLTC** is capable of being used in cold water washes.

II. PHYSICAL PROPERTIES:

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

Odor: Slight fermentation odor

pH (1% soln): 8.0 ± 1.0

Activity: > 5,500 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™ PLTC** can be utilized to accomplish the following:

1. Significantly soften 100% cotton fabrics, both woven and knits.
2. Increase the "stone wash" effect on rotary washed garments when using a significant amount of pumice stones and/or other abrasives.

IV. PROCESSING CONDITIONS: GENERAL

ROCKSOFT™ PLTC will function from a pH of 5.5 to 6.5 and will function from 30°C to 60°C (86°F to 140°F). We recommend an operating pH of 5.5 to 6.0 and temperature of 40°C to 50°C (104°F to 122°F).

If ROCKSOFT™ PLTC 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.

V. RECOMMENDATIONS FOR FORMULATION:

ROCKSOFT™ PLTC functions well at pH 5.5 and 40°C. Formulated products contain the following components.

PLTC	10.0% to 20.0% (depending on the strength desired)
TSC:Adipic (3.5:1)	50.0-80.0% (trisodium citrate, adipic acid) for pH 5.5
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 Tergitol 15-S-9)

Example formula for pH 5.5 (products should be added in this order)

TSC	46.2%
Adipic	13.2%
Perlite	5.0%
Detergent	20.0%
Wetter	1.0%
PLTC	14.6%

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

* Pumice should be bone dry to prevent adding extra moisture to the product. Perlite should be the popped variety.

**The detergent is available from major nonionic detergent manufacturers like BASF, Clariant, or Henkel.

*** This is important to insure a uniform blend.

VI. STORAGE CONDITIONS:

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

VII. INACTIVATION:

ROCKSOFT™ PLTC 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™ PLTC** within the next operating bath.

VIII. PACKAGING:

ROCKSOFT™ PLTC is packaged in 75 kg fiber drums.

IX. TECHNICAL SERVICE:

Information covering specific applications for this product is available from your Dyadic International (USA), Inc. sales/technical representative. Call your sales/technical representative for any questions, comments, or help that you need!

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