



CELLUTEN

DESCRIPTION

Celluten is a washing preparation containing cellulase enzyme. The product is designed for use especially in denim washing and imparts aged look to denim garments.

It is used in washing of cotton materials stained by indigo dyes.

The preparation is a mixture of cellulase enzyme, non-ionic surfactants and other inorganic additives.

STANDARDS

700 U/g

PHYSICAL PROPERTIES

Form - powder

Colour - pale brown

PH of 1% water solution - 5-6

Total surfactant content, % - min 10

Cellulase activity, Cx/g - 500 10%

APPLICATION

Celluten has been used in stone washing of cotton materials and knitted fabrics stained by indigo dyes.

Non-ionic surfactants in the composition of Celluten possess equalising and dispersive properties- they extract dye uniformly out of the material and disperse it within the bath, thus preventing its reverse accumulation on the surface of materials. The presence of cellulase enzyme accelerates the mechanical rubbing out of dye and so increases effect of stones.

Celluten has been used at concentrations of 1.0-2.0 g/l., temperature 50-55°C, pH 5.5-6.0 and bath module 1:10. pH values and temperature have to be controlled throughout the washing process. If necessary, pH is corrected by addition of Acetic Acid. It is recommended that bath module be as low as possible, so as to increase mechanical effect of Celluten.

PROCEDURES

1. Preliminary washing

Bacterial Alpha amylase - 0.2 - 1.0 g/l

Wet agent:

- Sinterol MAN - 0.2 - 0.5 g/l

- Sinterol T - 0.5 - 1.0 g/l

- **Sinterol MCA** - 0.2 - 0.5 g/l

Time - 15 - 20 min

Temperature - 50 - 50°C

pH - 6 - 7

2. Stone washing

The real washing procedure is carried out at two stages - material is treated only with water (M 1:10) and stones for 20-30 min. at a temperature of 40-50°C. After that step the washing medium and dispersive agent are added:

Celluten - 1.0-2.0 g/l

Wet agent - Sinterol HCB - 0.5 - 1.0 g/l

Time - 60 - 90 min

Temperature - 50 - 55°C

pH - 5 - 6

3. Rinsing out

Wet agent - Sinterol T - 0.5 g/l

Sodium Carbonate - 2.0 g/l

Optical Bleacher - 0.1 g/l

Time - 15 - 20 min

Temperature - 40 - 50°C followed by twofold rinsing with pure water

4. Softening up

Sherisoft E; Sherisoft EC-at concentration - 1.0 - 1.5% in relation to material weight; Time 10-15 min; Temperature 40°C.

Concentrations of washing medium and softeners vary in respect to bath module - when lower modules are used the higher concentrations are recommended.

Other non-ionic washing agents could also be used and the quoted amounts must be corrected in respect to the quality of washing agent. The same is valid for softeners.

When using Celluten in washing procedures of denim materials the desired effect is achieved in a shorter time without negative effects on textile material. The ready made materials possess soft, pleasant performance when touched and stable brilliant colours.

STORAGE

In the original container, well-closed, in dry and well-ventilated facilities, protected from direct sunlight.

SHELF LIFE

One (1) year.

PACKING

Polyethylene bags of 10, 15 and 20 kg.