

Technical - Information

AVCO-SON FTA

ACID CELLULASE FOR STONE WASH OF DENIM GARMENTS

AVCO-SON FTA is concentrated acidic cellulase enzyme preparation, which is used for receiving decoloration effect on jeans/denim garments and fabrics, as a substitute for the "stone-wash" process traditionally used with special abrasion stones. It can also be used together with abrasion stones in a lower load.

SPECIFICATION:

Appearance	Light tan coloured powder.
Chemical nature	Blend of cellulase enzymes with special acidic buffer additives.
Solubility	Soluble in water.
pH (1%)	2.5 - 3.5
Compatibility	Can be used with nonionic surfactants.
Storage	Keep in cool and dry place in tightly closed packages. When properly stored shelf life is at least 12 months.

PROPERTIES & USES:

1. Concentrated acidic cellulase enzyme preparation.
2. AVCO-SON FTA produces a unique faded look along with a softer handle, which can vary according to the users preference.
3. Provides abrasion, de-pilling, surface polishing and softening of variety of cellulosic garments and fabrics.
4. Less pumice stones are used in the "stone - wash" process, which saves handling problems and storage space of big amounts of abrasion stones.
5. Lowers noise problem in the mill.
6. Lowers machine amortization.
7. Lowers damages to denim garments.
8. Can be used in combination with abrasion stones with lower loads of the pumice stones.
9. Effective over a pH range of 4.5 - 5.5 with maximum effectiveness at pH = 5.
10. Effective over a broad temperature range of 40 - 65°C with maximum effectiveness at temperature of 60°C.

Technical - Information

11. High dose response which provides the flexibility of varying dose, pH, temperature and time to achieve a wide range of abrasion from light to heavy.

APPLICATION:

I. De-sizing:

Proper and complete desizing is required for consistent performance.

1. Load machine and add chemicals.

AVCO-BIOLUZE MAX HC 1 - 2 gr/l

AVCO-ZIM 120 0.5 - 2 gr/l

2. Raise temperature to 60 - 65°C, and treat for 30 - 60 minutes (depends on machine type).
3. Drain, rinse hot and cold.

II. AVCO-SON FTA treatment without abrasion stones:

1. Fill machine with water to liquor ratio 1:6 - 1:10.
2. Adjust pH to 4.5 - 5.5.
3. Add 0.3 - 1.2% o.w.g of AVCO-SON FTA.
4. Raise temperature to 50 - 55°C and treat for 15 - 60 minutes.
5. Drain solution, rinse hot and cold.
6. Wash with 1 - 3 gr/l AVCO-BLANK NPS LF/ AVCO-BLANK NPS SR at 70 - 80°C.
7. Rinse cold, and continue with softening procedure. Use AVCO-SOFT OZF, an anti-ozone-fading softener.

III. AVCO-SON FTA treatment with abrasion stones - combined process

It is possible to combine the AVCO-SON FTA treatment with abrasion stones. In this process dosage of AVCO-SON FTA is lower. Use 0.25 - 1.0% o.w.g. The procedure is similar to the stoneless procedure mentioned above. The quantity of abrasion stones can be reduced compared to the quantity needed when stone-washing without cellulase enzymes.

REMARKS:

1. It is recommended to check the effectiveness of AVCO-SON FTA by pre-trials with every specific denim quality.
2. After the enzyme treatment drain the bath and wash immediately. The fabrics should not stay too long with enzyme residues as it can cause deterioration of the fabric strength. It is also possible to stop the enzymatic activity by adding alkali and raising pH to 8 - 8.5 or by immediate chlorine bleaching.