Ultreza series

Ultreza LAN

Dispersing and leveling agent for nylon dyeing.

INTRODUCTION

Nylon fiber is commonly dyed with acid dyes which are anionic in character, including premetallized acid dyes, in a batch process referred to as exhaust dyeing. Since acid dyes are negatively charged, the dyes are attracted to positive dye sites appearing in the targeted substrate. With respect to nylon, positive dye sites can be created by exposing the free amino groups contained within the polymer matrix to an acid. In particular, when exposed to acidic conditions, the amino groups are activated by protonation and become positively charged and cationic. Once positively charged, the acid dyes are strongly attracted to the cationic sites.

Unfortunately, acid dyes exhibit such a high rate of strike that they do not diffuse evenly into polyamides. Thus, if the dye is absorbed by the polymer too quickly, the polyamide material can absorb the dye unevenly and not exhibit a constant shade or color. In such cases, anionic leveling agents act by competing for the dye sites and are mainly used to counter-act fiber-oriented unlevelness due to physical and chemical irregularities in the fibre.

FEATURES

- Disperses the dye molecules and maintains an equilibrium dispersion of dye molecules.
- Prevents agglomeration of dyestuffs at high temperature and facilitates dye migration.
- Prevents precipitation of dyes with impurities in the fibre.
- Improves dye solubility and promotes level dyeing.
- Permits improvement of dyeing reproducibility.
- Facilitate printing of nylon fibres with acid dyes.

PROPERTIES

Appearance	Yellow Brown viscous liquid
pH	approx.7.0-8.0
Ionic character	Anionic
Compatibility with -	
Cationic	Poor
Anionic	Good
Non-ionic	Good

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Stability to temperature	Good
Stability to hard water	Good
Stability to electrolyte	Good

SAMPLE RECIPE FOR NYLON DYEING

Ultreza LAN due to its substantivity for nylon fibre, enforces a slow and even rate of absorption which results in excellent penetration and level dyeing. **Ultreza LAN** is applied for dyeing of nylon in weakly acidic baths. It is especially suitable for acid dyes.

Dyeing of Nylon

2.0 – 3.0 %	Neutracid ABD
1.0 – 3.0 %	Sodium acetate
1.0 – 3.0 %	**Ultreza LAN**
	Raise the temperature to 50°C & run for 10 minutes.
x %	1:2 Metal Complex dyes
	Treat at 100°C for 50-60 mins
	Lower the temperature to 80°C and drain the bath.
	Rinse thoroughly for 20 mins at 50°C
	Raise the temperature to 90°C
1.0 – 2.0 g/l	Evoran SAN
	Treat for 20-30 mins.
	Cold wash for 15-20 mins. Drain

Printing polyamide (pale shades)

5 – 10g/kg (print paste)	**Ultreza LAN**

STORAGE AND HANDLING

Precautions for safe handling	Do not eat, drink or smoke while handling the product.
Conditions for safe storage	Store in a cool, dry & ventilated area away from the sources of heat.
Shelf Life	6 months.

Note: Kindly refer SDS for further information on Storage & Handling.

Ultreza is a registered trade name of Stalwart Advance Material Inds.

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