NILACOLOR AFFINITY XTRA

GLOBAL PROCESS FOR POLYAMIDE DYEING
The differences of affinity in polyamide fiber mainly caused by stretching difference after extrusion during the yarn production produce the kinetic stripe. This difference is very noticeable according the type of dyes used. For instance, turquoise and pre-metallized, which have got lower mobility of the molecules of the dye, give bad migration and consequently bad leveling effect.

Because of this, the NILACOLOR AFFINITYXTRA process starts with a pre-wash before dying, in order to modify the surface of the fiber and to reorient it in a way that gives a greater mobility of the molecules of the dye.

NILACOLOR AFFINITYXTRA substantially improves the leveling effect, even when using a combination of dyes with very different exhaustion curves. This process is very suitable for polyamide dyeing in cross-bobbin and also for the other types of dyeing systems.

With NILACOLOR AFFINITYXTRA the best results can be achieved for swimming wear, which have to fulfill requirements like fastness to chlorine, yellowing, sea water, hard water, alkali and acid sweat, etc., without using dyes or/and processes much more costly.
NILACOLOR AFFINITY XTRA leveling effect even with combination of non-appropriate colors. Control of the exhaustion curve of the dye and the pH.

Exhaustion curves compared between leveling agents

Exhaustion and levelling testimonials

Dyeing Chart used for the comparison of leveling agents

Leveling according to the pH

Leveling according to the temperature
NILACOLOR AFFINITY™ combination of auxiliaries in order to achieve better leveling, dichroism and fastness, even in blends of turquoise and yellow dyes.

Exhaustion curve comparison

Conventional exhaustion process

NILACOLOR AFFINITY™ exhaustion process

Comparative exhaustion curves
NILACOLOR AFFINITY™ combination of various finishing products in order to achieve maximum fastness properties.

Combination of fixing agents in order to improve fastness by exhaustion

- **FIXERON IP**
- **SCODET ALB**

Combination of fixing agents in order to increase or improve fastness by padding

- **FIXERON PA-CLC**
- **FIXERON FF-50**

**FINISHING**

**PROCESS**
**SCODET - ALB**
Soaping agent for cellulose fibres dyed and printed with reactive dyes. It is based on innovative polymers that allow keeping hydrolysed dyes in the water thus avoiding any back-staining on fabric.

**CARPON - DFS**
Auxiliary for polyester dyeing. Diffuser effect of the dye on the fibre.

**LEDIGAL - PA**
 Levelling for dyeing polyamide and wool with affinity for the fibre. It works by reducing the rate of rise and facilitating a greater migration of the dye.

**LEDIGAL - TQ 10**
 Levelling agent for polyamide dyeing with acid dyes and pre-metallic.

**DYEWET - SPA**
Wetting and surface modifying agent for polyamide fibres. Removes stripes and ensures regular dyeing.

**ADIDYE – PH**
Acid donor agent for polyamide and wool dyeing process.

**FIXERON - IP**
Fixing agent with levelling effect for polyamide dyes.

**FIXERON - PA**
Fixing agent for dyeing and printing made with acid dyes on polyamide.

**FIXERON - PA/CLC**
Fixing agent to confer resistance to chlorine on polyamide dyed with acid and premetallised dyestuff. Auxiliary applied in continuous.

**FIXERON - PA/CLD**
Fixing agent to confer resistance to chlorine on polyamide dyed with acid and premetallised dyestuff. Auxiliary applied in discontinuous method.

**FIXERON - FF 50**
Formaldehyde-free fixing agent for direct, sulphur and reactive dyes. Minimum effect on the light fastness of dyes.
Polysistec started its activities in 1995, initially focusing on the design, manufacture and sale of chemical products for the textile industry. Later in the year 2005 the company began a diversification strategy creating the Industrial Business Unit which offers products for different sectors.

The continued research for new products and applications along with a policy of sustainability and respect for the environment have led to a progressive and constant presence in markets around the world.

In the facilities of Castellar del Vallès (Barcelona) R & D developments are performed in order to respond to each of their clients’ needs. All this combined with the continued assistance provided by our Technical & Sales department, are the basis of the business.