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## TAIGAL DLA

(Low Foaming Dispersing Leveling Agent)

**TAIGAL DLA** is a low foaming dispersing leveling agent used in rapid dyeing machine. It also imparts good retarding, leveling and dispersing to polyester and its blend when dyeing with dispersing dyestuff in high temperature rapid machine.

### 1. General Properties :

Appearance : Yellow transparent liquid

Chemical constitution : Special surfactants blended

Ionic character : Anionic/nonionic

pH (1% Solution) : Approx.8

Solubility : Easily dissolve in cooling water

### 2. Features :

- A. **TAIGAL DLA** is a low foaming product.
- B. Outstanding performance of leveling and retarding.
- C. Excellent dispersing effect to protect the forming of tarring.
- D. No color-change after dyeing with **TAIGAL DLA**.

### 3. Application :

For ordinary dyeing process : 0.3-0.5 g/L is required.

For re-dyeing process : 1.0-2.0 g/L is recommended.

### 4. Practical Experiment:

#### 1). Color change testing:

- a). Dyestuff for testing: Dianix Blue KBN-FS 0.01 % o.w.f.
- b). The dispersing leveling agent and its amount

① Blank

② Competitor 1 g/L

③ **DLA** 0.5 g/L

**Testing method:**

Bath ratio: 1:20

pH 4.5 - 5.0

Temperature vs. time: 130°C × 30'

**The evaluation of color change:**

Compare the color of above dyed fabrics, if any color change or color is lighter than the blank is found, that means the dispersing / leveling agent influences the color.

**The result of above test:**

	<b>DLA</b>	<b>Competitor</b>
<b>Evaluation</b>	○	×

○ : no color change × : color change

**2). Dispersion Test:**

Dyestuff for test: Disperse Red 167 1.5g/l

Dispersing levelling agent 1.0g/l

Bath 200ml

pH 4.5-5.0

Temperature vs. time 130°C × 10' cooling to 90 °C then filter

**Evaluation : The solution treated with above condition is filtered with Toyo filter paper No.5, then check the dispersing of dyestuff on the filter paper.**

**The result is:**

	<b>DLA</b>	<b>Competitor</b>
<b>Evaluation</b>	○	×

○ : dispersing is good × : dispersing is bad

### 3). Migration Test:

Dyestuff for testing: Kayalon Uellow 5G-S 1%  
Dianix Red KBN-SE 1%  
Dianix Blue S-2R 1%  
Dispersing leveling agent RT-430 1g/L  
Fabrics for testing PET knitting

Bath ratio : 1:10 pH : 4.5-5 Temperature × time: 130°C × 30'

The fabrics dyed with above condition are carried out with migration test showed as follow:

Dispersing leveling agents: 1) Blank  
2) DLA 0.6 g/L 0.9 g/L  
3) Competitor 1.0 g/L 1.5 g/L

Bath ratio : 1:10 pH : 4.5-5 Temperature × time: 130°C × 30'

Washing the dyed fabrics with the water, then dehydrate and dry. This is the be migrated fabric.

In the residual dye solution, put into white PET knitting, then adjust the pH to 4.5-5 and dyed with 130°C×30' . Wash the dyed fabric and dry.

This is the fabric called migrating fabric, and then compares those two fabrics of before and after migration fabrics.

**The result is:**

	<b>DLA</b>	<b>Competitor</b>
<b>Evaluation</b>	○	×

○ : shows good migration × : poor migration

### 4). Foaming:

Prepare two solutions of DLA and competitor showed as follow.

Dispersing leveling agents: 1) **DLA** 1.0 g/L  
2) Competitor 1.5 g/L

pH keeps in

- 1) Neutral
- 2) 4.5-5.0

The dispersing leveling agent solution is poured into foaming test machine, and then starts the machine in the flux with 8 liters/min. circulating 5 minutes, then stops the machine. Record the height of foam at once, and record each height at 30sec, 1 minute, 2 minute, 5 minute. Then compare those data.

**The result is :**

	pH	DLA	Competitor
Room Temperat ure	N	1.0-0.7	5.0-3.5
	4.5-5.0	1.0-0.7	5.0-3.5
70°C	N	3.0-2.0	5.0-3.5
	4.5-5.0	2.5-1.8	5.0-3.5

**5. Packing :** TAIGAL DLA is supplied in 120 kg plastic drum.

The information and data in this bulletin are based on accurate laboratory researches and intended for your guidance. We cannot, however, accept any responsibility for the results obtained, in view of the numerous factors of applications are beyond our control. Our guarantee is limited to consistent quality of our products.