



**Gammacolor s.r.l.**  
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**Associazione Tessile e Salute**  
**Azienda associata**

**p.IVA 00736390964 C.F. 02639210158 c.c.i.a. Milano n. 927455 Codice ISS azienda 00736390964**

## **GAMMAPAL PLUS**

Reducing liquid agent for post washing polyester dyed fabric with disperse dyes. Directly applied in the dyeing liquor after dyeing at acid pH. Leaves color free wastewater.

Chemical constitution : Aqueous solution of a sulphinic acid derivate.

Appearance: Transparent liquid with low viscosity.

Storage: Practically unlimited at temperatures between among 5 and 30°C, (at least 12 months).

### **Properties**

Density: 1.16 g/ml at 20°C

pH: 10.5 – 12.5 at 5% in water at 20°C

Ionicity: Active-anion

Solubility: Water-miscible at any concentration. Odourless solutions.

Stability: Stable to hard water and alkalis. Solution stability for 48 hours. Not to be added directly in strong acids. Avoid contact with oxidizing products (hypochlorite, hydrogen peroxide, chlorite, etc.).

Compatibility: Compatible with anionic and non-ionic chemicals.  
Precipitates with active-cation products.

Ecology: is highly biodegradable. Over 70%.

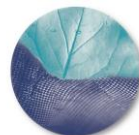
### **Actions and advantages (I)**

Has excellent reducing power in acid conditions. Used for washing dyed polyester with disperses dyes. Added in the same dyeing liquor after reducing the temperature to 80°C. In these conditions, removes the non-fixed color deposited on the fibre, and decolours the dyestuff in the liquor without affecting the colour fixed on the fibre. One of the most appreciated qualities of product is that with its use, wastewater is color-free. Residual dye is not found in the wastewater as this is reduced in the washing bath.

The appearance of oligomers on the fibre surface is controlled – this being common according to the polyester type and reducer/alkaline washing used. Compared to classic reducing agents treated in alkali media, it provides significant savings in:



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- Time (\*)
  - Water
  - Energy
  - Chemicals
  - Reduces pollutants and volume of wastewater
- (\*) See table page 6

### **Actions and advantages (II)**

With the use of Adratint CE-2C, the fibre is treated throughout the process in optimal conditions (slightly acid pH). In the classical system, the fibre during the dyeing is acid, whilst the post reducer washing requires an alkaline pH with the consequent fibre deterioration and the need to neutralize the final pH.

Acid ---→ Alkali ---→ Acid

Being a liquid, it offers easy dosage. Foam free and stable to air. Universal use in any type of equipment.

### **Working guide and concentrations to use**

The product is added to the dyeing liquor after reducing the temperature to below 80°C.

- The usual dosage for medium shades, is:

1.5 – 2.0 g/l GAMMAPAL PLUS

- For deep shades, reach:

2.0 – 3.5 g/l GAMMAPAL PLUS

Treatment is lengthened from 10 to 15 minutes at 80°C.

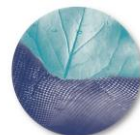
Followed by just one final rinsing bath.

The most suitable rinsing conditions are with a slightly acid pH for 10 minutes at 50°C.

In this final rinsing, finishing products can be added such as softeners, antistatic agents, etc.



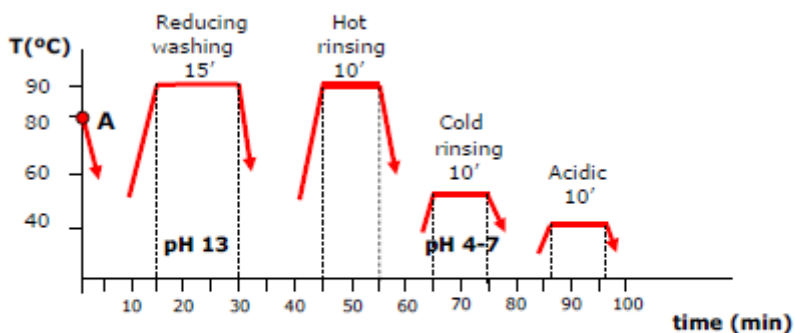
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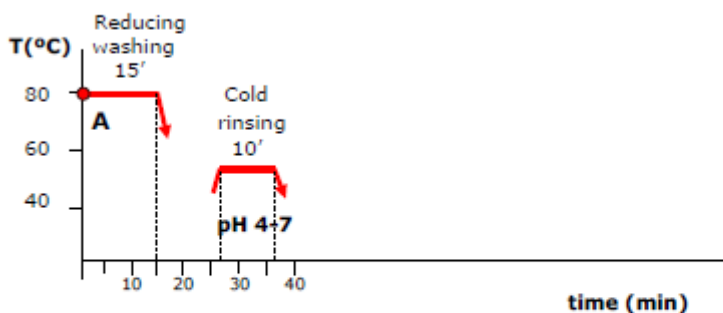
#### Conventional post reducing washing



Point A: Dyeing finishing point

**100 minutes**

#### Post reducing washing with ADRATINT CE-2C



Point A: Dyeing finishing point

**40 minutes**

Keywords: polyester, reducing agent, stripping, disperse

The data shown are the result of accurate studies and / or experience gained, however, must be considered indicative and in any case without warranty for our use.

The data contained in this sheet are not to be considered specific.

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