SYNTHOSPIN™ P-10

CHARACTERISTICS

- A highly concentrated liquid
- An extremely effective nonionic antistatic non-yellowing agent
- As little as 0.125% of actual SYNTHOSPIN™ P-10 on weight of fabric (owf) is required on application.
- Least critical to gumming, particularly on 100% polyesters and blends, especially during spinning.
- Most versatile on all synthetics (Polyester, Acrylics, modacrylics, Rayons, Acetates, Polypropylene & Nylon), Cotton, and Worsted & Modified Wool.
- Readily soluble in water in any proportions to produce an opalescent solution and is easily scoured
- An excellent tint dispersant
- Does not adversely affect lacquers on bobbins (for identification)
- Will not act as a "paint remover" on metal parts.
- Non-crocking, particularly on stock-dyed or top-dyed polyesters.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Appearance</td>
<td>Light amber, clear oily liquid</td>
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<tr>
<td>Solubility</td>
<td>Clearly soluble in water—all dilutions</td>
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<tr>
<td>pH (2% solution)</td>
<td>7.0 to 8.8</td>
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<tr>
<td>Density</td>
<td>8.6 lbs/gallon</td>
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<tr>
<td>Viscosity</td>
<td>235-245 seconds Saybolt at 100°F</td>
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<tr>
<td>Flash Point</td>
<td>375°F(open cup)</td>
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APPLICATIONS

COTTON SYSTEM

Since SYNTHOSPIN™ P-10 is least critical to gumming or loading of the cards, particularly on 100% polyesters and blends thereof; does not cause roll lapping.

We suggest initially in progressing 100% polyesters, that 0.175% to 0.20% be applied owf from a 1:9 cut in water at the opening hopper with or without tint.
With difficult blends, such as dope-dyed or stock-dyed modacrylic/polyester, use 0.2% add-on owf from a 1:9 cut in water. This aids appreciably in reducing carding fly and drop-out from a more compact lap and reduce shedding during spinning.

Mills using lacquer for bobbin identification indicate that SYNTHOSPIN™ P-10 does not cause softening of this material or sticking to the cans during coiling.

**WORSTED SYSTEM**

**Tow Conversion**
Mills who convert particularly Polyester(Dacrons*), Rayon, Acrylics, Modacrylic (Dynel**) tow, who had problems with too gummy an antistat and could not easily draft or cut the tow, indicate that with the use of SYNTHOSPIN™ P-10 has virtually eliminated their problems. Generally 0.25% - 0.5% application owf either neat or in a 1:4 cut in water is recommended to be applied at the crimper roll, the lower percentage (0.25%) should be considered initially. We suggest on coarser deniers (up to 40D and 50D the addition of our cohesive agent, SPINRITE™ to the SYNTHOSPIN™ P-10 HNF (1:2/1:4 ratio).

**Spinning**
During gilling about 0.25% add-on o.w.f. of SYNTHOSPIN™ P-10 is recommended either neat or from a 1:4 cut in water, particularly on 100% Dacron, Dacron/Wool blends, or Dacron/Mohair blends.

**Top Dyeing**
Generally, at the backwasher SYNTHOSPIN™ P-10 is sprayed either neat or in a 1:4 cut in water at a 0.25% add-on owf.

SYNTHOSPIN™ P-10 HNF will withstand temperatures in the area of 350°F without volatilization or decomposition. We have been complimented on the superior drafting (sliding of fibers) and softer and more desirable properties on 100% Dacron* Dyed Top (black in particular).

**Needle Felts (Non-Wovens)**
Generally, 0.2% to 0.25% of SYNTHOSPIN™ P-10 with or without 0.2% to 0.25% of SPINRITE™ depending on the fiber blend supplies the necessary static protection, lubricity, yields and web cohesion.

**Sliver-to-Knit**
We find excellent results with the use of SYNTHOSPIN™ P-10 in conjunction with our cohesive agents LENOSPINTM SDS CONC and SPINRITE™ on 100% Acrylic or blends thereof with modacrylics, 100% Polyester, and solution-dyed polypropylene with blends of polyesters.

Generally, on 100% Polyester or blends, use:

0.25% SYNTHOSPIN™ P-10

0.25% LENOSPINTM SDS CONC (or SPINRITE™)
Technical Bulletin

On 100% Acrylics or blends with modacrylics, use:

- 0.25% to 0.5% **SYNTHOSPIN™ P-10**
- 0.25% TO 0.5% **LENOSPIN™ SDS CONC** (or **SPINRITE™**)

ALL WITH 7% TO 10% OF MOISTURE.

*Resin applications*
**SYNTHOSPIN™ P-10** may be used to control static in resin coating systems. Typical applications would utilize 1-3% on weight of the resin system used.

*Approved by E.I. DuPont de Nemours & Co., Inc.

**Union Carbide Corporation**