Orco Synthrowite BNB™

Orco Synthrowite BNB™ is a highly substantive fluorescent brightening agent with excellent build up characteristics. It is most effective when applied to cellulosic fibers by exhaustion from a peroxide bleach in jet or package dyeing machines. **Orco Synthrowite BNB™** is also very effective when applied to nylon by exhaustion from a bath containing stabilized hydros. It is also suitable for application to cellulosic fibers by padding where there is no likelihood of tailing occurring. Since **Orco Synthrowite BNB™** is anionic it is compatible with nonionic and anionic finishing agents but may be adversely affected by cationic finishes.

Physical Properties

Chemical Composition	Stilbene Derivative			
Appearance	Clear amber			
Ionic Nature	Anionic			
Solubility	Miscible with water substantively high			
Shade	Blue/Violet			
Fastness	FIBER	LIGHT	ISO 3 WASH	ISO 4 WASH
	Cotton	4 - 5	4	4
	Nylon	4	4	4
	Nylon 6.6	4	4-5	4-5

Applications

Cotton

Orco Synthrowite BNB™ is suitable for use on jet, jig or package dyeing machines but is not suitable for use in kier bleaching since it is too substantive. The most common method is to apply **Orco Synthrowite BNB™** from a hydrogen peroxide bleach bath. Typical bleaching formulas are as follows:

Beck or Jet Bleaching

- Hydrogen Peroxide (35%) 8 g/l
- Caustic Soda 0.5 g/l
- **ORCO Bleach Assist 02S™** 1 - 2 g/l
- **ORCOTERGE ALK-N Conc™** As required
- **Orco Synthrowite BNB™** 0.4 - 0.8 on weight of fabric(owf)

Jig Bleaching

- Hydrogen Peroxide (35%) 3 - 5%
- Caustic Soda 1.0 - 1.5%
- **ORCO Bleach Assist 02S™** 1.0 - 1.5%
- **ORCOTERGE ALK-N Conc™** As required
- **Orco Synthrowite BNB™** 0.4 - 0.8% owf

Rhode Island Division
65 Valley Street
East Providence, RI 02914
Tel: 800-556-6784
Tel: 401-434-3300
Fax: 401-438-8136

North Carolina Division
1015 Concord Parkway North
Concord, NC 28027
Tel: 800-783-6955
Tel: 704-786-1118
Fax: 704-786-2415

Shanghai Division
Tel: 021-56630119
Fax: 021-56329220

E: info@organicdye.com

www.organicdye.com

ISO 9001 Certified

Orco Synthrowite BNB™ continued....

Package Bleaching

- Hydrogen Peroxide (35%) 13 g/l
- Caustic Soda 0.5 g/l
- **ORCO Bleach Assist 02S™** 1 - 2 g/l
- **ORCOTERGE ALK-N Conc™** As required
- **Orco Synthrowite BNB™** 0.4 - 0.8% owf

The bleaching is carried out at 100°C for 1 hour. The brightness of the white obtained with **Orco Synthrowite BNB™** in a bleach-bath can often be increased by an after treatment using stabilized hydros (2 parts hydros + 1 part sodium pyrophosphate) at 60°C for 20-30 minutes. **Orco Synthrowite BNB™** can be applied in a separate bath after bleaching at 60°C for one half hour to ensure levelness and maximum exhaustion. If the cotton is being resin-finished after bleaching, **Orco Synthrowite BNB™** may be adversely affected by certain resin/catalyst systems, particularly those containing the more acidic rapid curing catalysts.

Polyester/Cotton

Bleaching of polyester/cotton blends is generally carried out with bleach liquors similar to those used for 100% cotton fabrics, however, if it is required to apply an optical brightener such as **Orco Synthrowite RBP™** to the polyester component of the blend this can be applied in the hydrogen peroxide bleach and should be added at the start of bleaching. When bleaching is carried out in pressurized machines, the temperature can be increased at the end of the bleach to 120-130°C for a further 20 minutes in order to fully exhaust the polyester brightener. Alternatively the exhaustion of the polyester brightener can be assisted by the addition of a carrier to the bleach.

Polyamide/Cotton

Orco Synthrowite BNB™ can be used to obtain solid whites on bleached cotton/polyamide blends by application from stabilized hydros at 100°C for half an hour. The distribution of the **Orco Synthrowite BNB™** between the cotton and the polyamide is adjusted by careful control of the initial pH of the bath. pH values from 5-6 favor exhaustion onto the polyamide while pH values from 7-8 favor exhaustion onto the cotton.

Polyamide

Although **Orco Synthrowite BNB™** is applicable to nylon from a slightly acidic bath at pH of 5.5 at temperature of 100°C, the preferred method of application is

- **Orco Synthrowite BNB™** 0.5-2.0% owf
- Stabilized hydros 1 - 3 g/l

Temperature @ 90-100°C for 30 minutes

Rhode Island Division
65 Valley Street
East Providence, RI 02914
Tel: 800-556-6784
Tel: 401-434-3300
Fax: 401-438-8136

North Carolina Division
1015 Concord Parkway North
Concord, NC 28027
Tel: 800-783-6955
Tel: 704-786-1118
Fax: 704-786-2415

Shanghai Division
Tel: 021-56630119
Fax: 021-56329220

E: info@organicdye.com

www.organicdye.com

ISO 9001 Certified