

THREEPHOR™ BY140

Threephor BY140 is fluorescent whitening agent with neutral white color shade for polyamide, wool, silk, and cellulosic fibers which needed good whiteness. Especially it has good stable in one bath with hydrogen peroxide bleaching.

1. Special properties

- Good whiteness with neutral white shade after dyeing
- High affinity for cotton fiber in exhaust process
- Excellent wash fastness
- Good stability in one bath with hydrogen peroxide bleaching
- Unstable in one bath with chlorine bleaching

2. General properties

- | | |
|------------------------|------------------------|
| • Appearance | Greenish yellow powder |
| • Color index No. | 86(113) |
| • Chemical structure | Stilbene derivative |
| • Ionic character | Anion |
| • pH (1% solution) | 7 ~ 9 |
| • Solubility(25°C) | 20g/L |
| • Stability at pH (1%) | 5 ~ 12 |

3. Storage stability

Threephor BY140 is stable when properly stored in closed containers at 20°C

Once opened the container in order to use the product, it has to close in a short time after used its' contents and store in a dry and dark place to avoid contact with sunlight and air.

4. Stability

Item	Together with Dyeing (One bath)	After dyeing (Two bath)
Hard water	Stable	-
Peroxide	Stable	Stable
Reducing agent	Stable	Stable
Chlorite	Unstable	Unstable
Alkaline	Stable	Stable
Acid (< pH 5)	Unstable	Unstable

5. Fastness properties

TEST ITEM / METHOD	--		Cotton
Light (KS K ISO 105- B02)	--		2~3
Washing (KS K ISO 105-C06)	40°C	Deformation	5
		Migration	4
	95°C	Deformation	4
		Migration	4
Sublimation (KS K0651)	--		3
Perspiration (KS K ISO 105-E04)	Alkali		3
	Acid		3

6. Application

1) Cellulose fibers.

A. Exhaustion

- Dyeing after scouring and bleaching (Two bath)

Threephor BY140	0.2 ~ 0.8%
Glauber's salt anhydrous	0.5%
Liquor ratio	1:10 ~ 20
Time/Temp	80 ~ 100°C / 40min

- One bath with scouring and bleaching agent

Threephor BY140	0.2 ~ 1.0%
Hydrogen peroxide (35%)	7 ~ 15% (owf)
Hydrogen peroxide stabilizer(Silicate)	4.0 ~ 8.0g/L
Scouring agent	1.0 ~ 4.0g/L
Sequestering agent	0.5 ~ 2.0g/L
NaOH (50%)	2 ~ 4% (owf)
Liquor ratio	1:10
Temp/Time	95 ~ 100°C / 40min
Washing	Sufficient washing and neutralization

B. Padding

- Wet on Wet

Threephor BY140	1 ~ 6g/L
Temp(°C)	60 ~ 80°C
Time	5 ~ 10sec
Pick up	After Bleaching : 80%, After Dyeing : 100%

- Dry on Wet

TECHNICAL DATA SHEET

Threephor BY140	1 ~ 6g/L
Temp(°C)	60 ~ 80°C
Time	5 ~ 10sec
Pick up	100%

- **Cold pad batch**

Threephor BY140	0.2 ~ 1.0%
Hydrogen peroxide (35%)	40 ~ 50 g/L
Hydrogen peroxide stabilizer(Silicate)	2 ~ 6g/L
Scouring agent	1 ~ 4g/L
Sequestering agent	0.5 ~ 2g/L
NaOH (50%)	2 ~ 3g/L
Temp/Time	25°C/ 16 ~ 20hour
Washing	Sufficient washing and neutralization

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