

THREEPHOR™ SI

Threephor SI is fluorescent whitening agent with reddish violet white color shade for polyamide, wool, silk, and cellulosic fibers which needed good whiteness.

1. Special properties

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

2. General properties

- | | |
|------------------------|------------------------|
| • Appearance | Greenish yellow powder |
| • Color index No. | |
| • Chemical structure | Stilbene derivative |
| • Ionic character | Anion |
| • pH (1% solution) | 7 ~ 9 |
| • Solubility(25°C) | 10g/L |
| • Stability at pH (1%) | 5 ~ 12 |

3. Storage stability

Threephor SI 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.

TECHNICAL DATA SHEET

4. Stability

ITEM	Together with Dyeing (One bath)	After dyeing (Two bath)
Hard water	Stable	-
Peroxide	Unstable	Normal
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	3
	95°C	Deformation	4
		Migration	3
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 SI	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 SI	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 SI	1.0 ~ 5.0g/L
Temp(°C)	60 ~ 80°C
Time	5 ~ 10sec
Pick up	After bleaching : 80%, After dyeing : 100%

TECHNICAL DATA SHEET

- **Dry on Wet**

Threephor SI	1.0 ~ 5.0g/L
Temp(°C)	60 ~ 80°C
Time	5 ~ 10sec
Pick up	100%

- **Cold pad batch**

Threephor SI	0.2 ~ 0.8%
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

* The information give in here is based on the present state of our knowledge, but any conclusion and recommendations are made without liability on our products under their own conditions and their own requirement.

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