

THREETEX™ NIL

Threephor NIL is fluorescent whitening agent with bluish white color shade for polyester and its fiber blends which needed good whiteness. Especially it is suitable for continuous and exhaust process.

1. Special properties

- Suitable for both exhaust and continuous processes.
- Bluish white color shade after dyeing
- Good fastness and stability, in particular heat stability is excellent.
- Compatible with most finishing components and catalysts.
- Very high stability to alkali and peroxide.

2. General properties

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|----------------------|--------------------------|
| • Appearance | Gray liquid |
| • Color index No. | 199-1 |
| • Chemical structure | Styrylbenzene derivative |
| • Ionic character | Nonionic |
| • pH (1% solution) | 7 ~ 9 |
| • Specific gravity | Approx 1.05 |

3. Storage stability

Threetex NIL is stable when properly stored in closed containers at 20°C.

The product is sensitive to cold below 0°C and sensitive to heat above 40°C.

TECHNICAL DATA SHEET

4. Stability

Hard water	Stable
Peroxide	Stable
Reducing agent	Stable
Chlorite	Unstable
Alkaline	Stable
Acid	Stable

5. Fastness properties

TEST ITEM / METHOD	--	--	PES	PES/Cotton
Light (KS K ISO 105- B02)	--	--	5~6	5
Washing (KS K ISO 105-C06)	40°C	Deformation	5	5
		Migration	5	5
	95°C	Deformation	5	5
		Migration	4	4
Sublimation (KS K0651)	30s / 180°C	--	4~5	4
Perspiration (KS K ISO 105-E04)	Alkali	--	4~5	4~5
	Acid	--	4~5	4~5

6. Application

1) Dyeing after scouring and bleaching (Two bath)

	PES	PES/Cotton(50:50)
Threetex NIL	less than 0.6%	less than 0.3%
pH(Acetic acid)	5 ~ 7	7
Dispersing agent	0.5 ~ 1.0 g/L	-
Carrier	-	1 ~ 2 g/L
Liquor ratio	5:1 ~ 20:1	5:1 ~ 20:1
Temp/Time	120~130°C / 20~60min	100°C /40~ 60min

2) One bath with scouring and bleaching agents (In case of PES / Cotton(50:50))

	Bleaching & Dyeing
Threetex NIL	less than 0.3%
Threephor BYB	0.3 ~ 0.5%
Leveling agent	0.5 ~ 1.0 g/L
Scouring agent	0.5 ~ 1.0 g/L
Hydrogen peroxide (35%)	4 ~ 8% (owf)
Stabilizer (Silicate)	1.0 g/L
Sodium hydroxide (50%)	1.0 ~ 2.0g/L
Liquor ratio	1:10
Temp/Time	95~100°C / 40~60min
Washing	Sufficient washing

3) Padding

	PES	PES/Cotton(50:50)
Threetex NIL	0.5 ~ 3.0 g/L	0.2 ~ 1.5 g/L
Threephor TOP	-	3.0 ~ 7.0 g/L
Glyoxal resin	-	100g/L
Silicon softening agent	-	10 ~ 40 g/L

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Fatty acid softening agent	-	10 ~ 15 g/L
Antistatic agent	-	10 ~ 40 g/L
Catalyst agent	-	Depends on resin
Pick up	40 ~ 50%	40 ~ 50%
Dry & Cure	180~200°C / 20~60sec	180~190°C / 20~60sec

* 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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