

BENPERSE

DISPERSE DYES



BEN TECH CHEMICAL

Normal Type

- Suitable for multi-purpose application
- E-Trichromat: Broad pH range, Good light fastness
- S-Trichromat: High Build-up, Good washing fastness
- Good compatibility

BENPERSE		C.I. NO.	Depth o.w.1%	Energy	Dyeing Properties				Fastness			pH Range
					High temp	Thermosol	Printing	Yarn	Lighting (Xenon)	Sublimation (CH)	Washing (PES)	
E-TYPE TRICHROMATS												
	Yellow NP-RGL 200%		1.0	E	☉	△	△	△	5	3	4-5	3-9
	RED FB-200%	R-60	2.0	E	☉	△	△	○	6-7	2-3	3	3-9
	BLUE 2BLN 100%	B-56	2.0	E	☉	△	△	○	6-7	2-3	3	3-9
S-TYPE TRICHROMATS												
	Orange S-4RL 100%	O-30	2.0	S	☉	☉	☉	☉	6	4	4	3-7
	Rubine S-5BL 100%	R-167	1.5	S	☉	☉	☉	☉	5-6	3-4	4	4-7
	Navy HGL 200%	B-79	1.5	S	☉	☉	☉	○	4	4-5	4	4-6
NORMAL TYPE												
	Yellow NP-RGL 200%		1.0	E	☉	△	△	△	5	3	4-5	3-9
	Yellow S-4G 200%	Y-211	1.0	SE	☉	△	x	△	7	3	3-4	3-7
	Yellow SF-6G 200%		1.0	S	☉	☉	☉	☉	7	4	4-5	4-7
	Orange S-4RL 100%	O-30	2.0	S	☉	☉	☉	☉	6	4	4	3-7
	Orange GSF 200%	O-73	1.0	S	☉	☉	☉	x	4	4-5	4	4-8
	Scarlet GS 200%	R-153	1.0	S	☉	☉	☉	△	4	3-4	4	3-9
	Scarlet SR 100%	R-74	1.8	S	☉	☉	☉	☉	4-5	4	4	4-6
	Red 3B 100%	R-60	2.0	E	☉	△	△	○	6-7	2-3	3	3-9

BENPERSE	C.I. NO.	Depth o.w.1%	Energy	Dyeing Properties				Fastness			pH Range	
				High temp	Thermosol	Printing	Yarn	Lighting (Xenon)	Sublimation (CH)	Washing (PES)		
NORMAL TYPE												
	Rubine SE-GFL 200%	R-73	1.0	SE	☉	△	△	○	5-6	3	3-4	3-8
	Rubine S-SBL 100%	R-167	1.5	S	☉	☉	☉	☉	5-6	3-4	4	4-7
	Turg Blue S-GL 200%	B-60	2.0	S	☉	○	○	○	7	3	4-5	3-8
	Blue FBL 300%		0.8	SE	☉	△	△	×	4-5	3-4	4	4-8
	Blue 2BLN 100%	B-56	2.0	E	☉	△	△	○	6-7	2-3	3	3-9
	Royal Blue CRE 200%	B-366	1.0	SE	☉	△	△	○	5	3-4	3-4	4-7
	Navy Blue HGL 200%	B-79	1.5	S	☉	☉	☉	○	4	4-5	4	4-6
	Navy ECO 300%		2.0	SE	☉	△	△	○	4-5	3	3-4	3-9
	Black ECO 300%		4.0	SE	☉	△	△	○	4-5	3	3-4	3-9
	Yellow NP-6G 200%		1.0	S	☉	☉	☉	☉	7	4	4-5	4-7

EE Eco Type

- Eco-friendly
- Can be used in rapid dyeing, reduce the energy cost, improve the effective utilization rate of equipment
- One tone dyeing and migration, insensitive to temperature and time
- Good reproducibility, excellent RFT

BENPERSE		C.I. NO.	Depth o.w.4%	Energy	Dyeing Properties				Fastness			pH Range
					High temp	Thermosol	Printing	Yarn	Lighting (Xenon)	Sublimation (CH)	Washing (PES)	
	Yellow EE 200%		0.5	SE	☉	O	x	O	6-7	3-4	3-4	3-7
	Orange EE 3R 200%		2.0	SE	☉	☉	O	O	4-5	3-4	3-4	3.5-7.5
	Scarlet EE 200%		1.4	SE	☉	☉	O	O	4-5	3-4	3-4	3.5-5.5
	Red EE 200%		1.0	S	☉	☉	O	O	5	4-5	3-4	4-6
	Rubine EE 300%		0.6	SE	☉	☉	O	O	5-6	3-4	3-4	4-7
	Blue EE 300%		0.8	SE	☉	☉	O	O	4	3-4	3-4	3-6
	Royal EE- RLF 300%		0.8	SE	☉	☉	O	O	4	3-4	3-4	4-7
	Navy EE 300%		4.0	SE	☉	☉	O	O	4-5	3	3-4	3-9
	Black EE 300%		4.0	SE	☉	☉	O	O	4-5	3	3-4	3-9

WT High Washing Fastness

- Excellent dyeing fastness, especially washing fastness
- Excellent thermal migration property
- Good sublimation property
- Suitable for polyester/spandex blends

BENPERSE		Depth o.w.f. %	Energy	Light (Xenon)	Rubbing Fastness		Sublimati on Fastness		Washing Fastness				pH Range
					Dry	Wet	CO	PES	Ca	CO	PA	PES	
	Yellow WWT 200%	1.0	S	7	4	4-5	4	4	4-5	4-5	4-5	4-5	3.5-5.5
	Brown WXFT 200%	2.0	S	5	4	4-5	4	4	4-5	4-5	4	4-5	3.0-4.5
	Scarlet WBRT 200%	2.0	S	5	4	4	4	4	4-5	4-5	4-5	4-5	3.5-6.0
	Scarlet WXFT 200%	2.0	S	4	4	4	4	3-4	4-5	4-5	4-5	4-5	3.5-6.5
	Rubine WRUT 200%	2.0	S	5-6	4	4-5	4-5	4	4-5	4-5	4-5	4-5	3.0-4.5
	Violet WBVT 200%	1.5	S	6	4	4	4	4	4-5	4-5	4-5	4-5	3.0-5.0
	Navy WNBTS 200%	6.0	S	4-5	4	4	4	3-4	4-5	4-5	4	4-5	3.0-5.0
	Black WAT 300%	6.0	S	4-5	4	4	4-5	4	4-5	4-5	4-5	4-5	3.0-5.0
	Blue WECT 200%	3.0	S	5	4	4	4	3	4-5	4-5	4	4	3.0-4.5
	Brown WECT 200%	3.0	S	5-6	4	4-5	4-5	4	4-5	4-5	4	4-5	3.5-5.0
	Rubine WECT 200%	3.0	S	4-5	4	4-5	4-5	4	4	4-5	3-4	4-5	3.5-5.0
	Navy WECT 300%	4.0	S	4-5	4	4	4	4	4-5	4	3-4	4	3.5-5.0
	Black WECT 300%	6.0	S	4-5	3-4	4	4	4	4	4	3-4	4-5	3.5-5.0

Recommendation

Dyeing Profiles

Substrate: Polyester Woven

Temperature: 130⁰ C

Run: 30 mins

Liquor Ratio: 1:30

pH: 4.8

Dye Group

S: High Energy

SE: Medium Energy

E: Low Energy

Suitability

◎: Very Suitable

○: Suitable

△: Limited Suitable

X : Not suitable

Fastness Test Method

Colour Fastness to Washing: ISO 105-C03 Stain on PES

Colour Fastness to Light: ISO 105-BO2 Xenon

Colour Fastness to Sublimation: ISO 105-X11 Colour Change

Dyeing

HT-HP

BENPERSE DYES: X%

Sequester (BENQUEST CA-170): 0.3 – 0.5 g/l

Levelling Agent (BENTRON K-500): 0.5 – 1.0 g/l

Acetic Acid: pH 4.5 – 5.5

Remark:

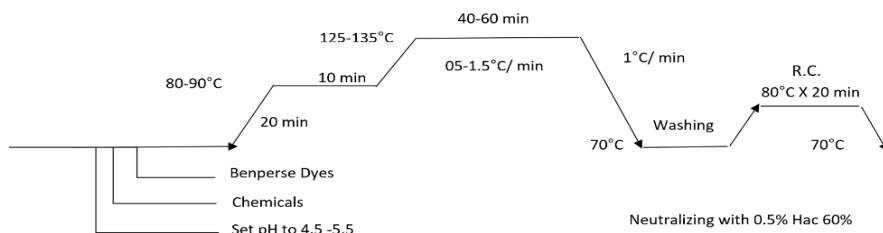
Paste the dyestuff with warm water (40 – 50° C) and dilute with cold water, stir completely. Add the solution into dyeing machine through a filter. Cannot use hot water to dissolve.

Reduction Cleaning:

Caustic Soda (100%): 1.0 – 2.0 g/l

Hydros (85%): 2.0 – 3.0 g/l

Detergent (BENMORLE CBP): 1.0 – 2.0 g/l



Thermo-fixation:

Thermo-fixation mainly for continuous dyeing of polyester/cotton blends can be processed as below:

Padding – Drying

BENPERSE Dyes: x g/l

Anti-migrant (BENMIGRATE LS-15N): 1.0 – 5.0 g/l

Wetting Agent (BENWET E-155): 1.0 – 2.0 g/l

Acetic Acid: pH 4.5 – 5.5

Temperature: 20 – 40⁰ C

Pickup: 60 – 70%

Drying: 70 – 90⁰ C

Thermo-fixation

Temperature: 190 ~ 220⁰ C

Time: 60 ~ 120 sec.

After treatment

Washing

Reduction cleaning (See HT-HP Dyeing)

Washing and dyeing

Direct printing

Loading → Direct Printing → Drying → Fixation → Washing →
Reduction Cleaning (optional) → Washing → Hydro-Extraction and drying
→ Setting

Recipe:

BENPERSE DYES	: x g/l
Urea	: 20 – 50 g
Thickener	: 300 – 500 g
Tartaric acid	: 2.0 – 5.0 g
Acetic acid	: pH 4.5 – 5.5
Sequester (BENQUEST CA-170)	: 0.5 – 2.0 g
Total	: 1000 g

Fixation:

The printed fabrics should be dried at a temperature below 120⁰ C to avoid over penetration. HPS, HTS or Hot Air as below can be applied.

Pressurized Fixation	: 0.15 ~ 0.20 Mpa, 130 ⁰ C, 20 – 30 min, Processing in cylinder steamer
High Temperature Fixation	: 175 – 180 ⁰ C, 7 – 8 min, Processing in high temperature loop steamer
Hot Air Fixation	: 180 – 210 ⁰ C, 1-2min, Processing in stenter or baker

Discharge Printing

Polyester Dyeing Washing (Reduction cleaning, optional) → Drying → Discharge
printing → Drying → HTS or PS → Washing → Finishing

Recipe

Stannous	: 60.0 – 80.0 g/l
Citric Acid	: 30 g/l
Urea	: 50 g/l
Guar	: 400 g/l
Total	: 1000 g/l

NOTE

NOTE



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LOCATIONS AND CONTACT

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