

#### **Ecologically friendly and cost effective: VIOFLON ECO TEX**

Ecological friendly disperse dyes are produced by our company through the most advanced processing technology to provide ECO solutions to our customers to meet tightened environmental standards (Restricted Substances Lists – RSLs). Wanfeng's ecological friendly disperse dyes comply with the Oeko-Tex Standard 100 Ecological Textiles Class I certification standard. After dyeing under normal condition, contents of 24 banned aromatic amines, carcinogenic allergenic dyes, organochlorine carriers, tetrachlorophenol and pentachlorophenol are all lower than the standard limit.

VIOFLON Orange S-4RLN (the new generation of O30) is especially recommended. This product has been developed to meet rising demand in regard to performance and ecological profile and at the same time to keep the cost at relatively low level. This product has been recognized by many multinational dyestuff companies and supplied to them as PFR (Purchase for Resale) product. All ECO TEX dyes have passed the testing and certified by third-party authoritative organizations.

Wanfeng has cooperated with Bluesign since 2016 and has become Bluesign partner. Currently, more than 90 products have been approved and registered in Bluesign® Bluefinder. More products will be added in the future.

	Shade	o.w.f	Shade	o.w.f	Product Name	CI	Washing Fastness ISO-105C01 40°C	Sublimation Fastnesss 180°C×30S	Light Fastness	рН	Bluesign Approval
		0.5%		1.0%	Vioflon Yellow 4G	Y-211	4	2-3	5-6	4-7	N
		1.0%		2.0%	Vioflon Yellow BRL	Y-163	4-5	4-5	7-8	4-9	γ*
		1.0%		2.0%	Vioflon Orange S-4RLN	O-30	4-5	4-5	6-7	4-8	Υ
		1.0%		2.0%	Vioflon Orange S-3RFL	0-44	4-5	4-5	5	4-8	N
		1.0%		2.0%	Vioflon Orange SE-RL	0-61	4-5	3-4	5-6	4-7	N
		1.0%		2.0%	Vioflon Orange AS-J	O-288	3-4	3-4	5-6	4-8	N
		1.0%		2.0%	Vioflon Red F-3BS	R-343	3-4	3-4	5-6	4-8	Υ
		1.0%		2.0%	Vioflon Red BB	R-82	3-4	3	6-7	4-6	N
		1.0%		2.0%	Vioflon Red GFL	R-73	3-4	3	6	4-6	N
		1.0%		2.0%	Vioflon Red GS	R-153	3-4	3-4	5-6	4-9	N
		1.0%		2.0%	Vioflon Red S-5BL	R-167	4-5	4	5-6	4-6	N
		1.0%		2.0%	Vioflon Red 3BFF	R-362	4	4	5	4-6	N
VIORI ON		1.0%		2.0%	Vioflon Red P-4G	R-278	4-5	4	6	4-5	Υ
VIOFLON		1.0%		2.0%	Vioflon Blue H-GL	B-79	4-5	4-5	6	4-6	Υ
ECO TEX		1.0%		2.0%	Vioflon Blue 3RT	B-148	4	3-4	5-6	4-8	Y
		1.0%		2.0%	Vioflon Blue BBLS	B-165	4	3-4	6-7	4-8	N
		1.0%		2.0%	Vioflon Blue BGLS	B-165.1	4	3-4	6-7	4-8	γ
		1.0%		2.0%	Vioflon Blue SE-2R	B-183.1	4	3-4	6	4-8	N
		1.0%		3.0%	Vioflon Blue 3RF	B-257	4-5	4-5	6	4-7	Υ
		1.0%		3.0%	Vioflon Blue RBS	B-337	4-5	4-5	6-7	4-5	N
		1.0%		2.0%	Vioflon Blue CR-E	B-366	4	3	6	4-7	Υ
		1.0%		3.0%	Vioflon Blue F-2GS	B-367	4-5	4-5	6-7	4-7	Υ
		1.0%		2.0%	Vioflon Brill. Blue S-R	B-354	4-5	4	4	4-5	Υ
		1.0%		3.0%	Vioflon Blue FBLN	MIX	4-5	4	6	4-6	N
		3.0%		5.0%	Vioflon Black EKIN	MIX	4	3-4	5-6	4-7	N
		4.0%		5.0%	Vioflon Black PBSF	MIX	4	3-4	5-6	4-7	N

\*depends on testing data



## Reliable dyes for sportswear with years of proven track record on good fastness: VIOFLON XT/XT-2

VIOFLON XT series is a set of high wash fastness disperse dyes. These dyes are mainly for blended fabrics such as polyester and polyester-cotton and can achieve higher wash fastness than previous generation (XF). For fabrics containing elastane, the washing fastness is also significantly improved. These dyes can be used for exhaust, continuous or package dyeing. XT dyes not only provide reliable fastness and color shade, but also are not sensitive to reductive substances in the processes well as water quality. XT dyes make up for the deficiency of XF series, and do not need to use dyeing protective agent, anti-reduction agent and other auxiliary agents during dyeing process. The dyeing consistency between batches is good which can significantly improve the first-time success rate.

#### Features of XT dyes:

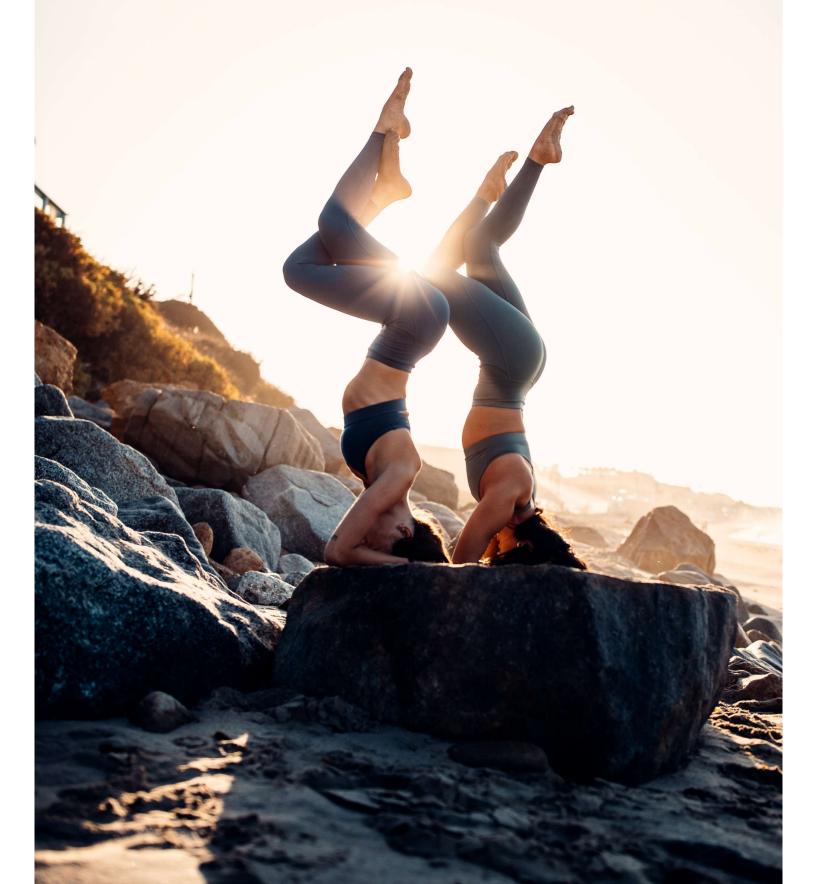
- It is the same color range as XF dyes and can be directly replaced.
- High washing fastness and good sublimation fastness,
- Very little staining to nylon, acetate fiber and cotton
- Strong adaptability to water quality, good dispersibility at high temperature, and strong process adaptability.
- Mainly for the processing of pure polyester, polyester-cotton and polyester-spandex fabrics.
- Complies with OKEO-TEX® 100 standard and has obtained Bluesign® certification.

	Shade	o.w.f	Shade	o.w.f	Product Name	CI	Washing Fastness ISO-105C03	Sublimation Fastnesss	Perspirat	ion Fastness	Bluesign Approval
							60°C		Acid	Alkaline	A SEPTION
		0.5%		1.0%	Vioflon Flavine XT-6G	Y-114	4-5	4-5	4	4	Υ
		1.0%		2.0%	Vioflon Golden Yellow XT-3R	MIX	4-5	3-4	3-4	3-4	Υ
		1.0%		2.0%	Vioflon Yellow Brown XT	Br-19	4-5	4-5	4	4-5	Υ
		1.0%		2.0%	Vioflon Red XT-BS	R-383	4-5	4	4-5	4-5	N
		1.0%		2.0%	Vioflon Red XT-FS	R-377	4-5	4	3-4	4-5	N
		1.0%		2.0%	Vioflon Scarlet XT	R-369	4	4-5	3-4	3-4	Υ
VIOFLON		1.0%		2.0%	Vioflon Scarlet XT-RS	R-378	4	3-4	3-4	3-4	N
XT		1.0%		2.0%	Vioflon Rubine XT-4BS	R-376	4	4-5	3-4	3-4	Υ
A1		1.0%		2.0%	Vioflon Rubine XT	MIX	4	4-5	3-4	3-4	Υ
		1.0%		2.0%	Vioflon Turquoise XT-PS	B-60	4-5	3-4	4-5	4-5	Υ
		1.0%		2.0%	Vioflon Blue XT	MIX	4-5	4	4-5	4-5	Υ
		1.0%		3.0%	Vioflon Navy XT	MIX	4-5	4	4-5	4-5	Υ
		1.0%		5.0%	Vioflon Black XT	MIX	4-5	4	4	4	Υ

### VIOFLON XT2 series is a set of high wash fastnesses disperse dyes extend high performance of XT range but with higher sublimation fastness.

	Shade	Shade	Shade o.w.f Shade o.w.f Product Name	Washing Fastness AATCC 61, 2A	Sublimation Fastnesss	Perspira	Bluesign Approval			
					49°C		Acid	Alkaline		
		0.5%	2.0%	Vioflon Yellow XT2	4	4	4	4	Υ	
		1.0%	2.0%	Vioflon Yellow Brown XT2	4-5	4-5	4	4-5	N	
VIOFLON		1.0%	2.0%	Vioflon Rubine XT2	4-5	4	4	4	N	
XT2		1.0%	3.0%	Vioflon Navy XT2	4-5	4	4	4	N	
X12		1.0%	5.0%	Vioflon Black XT2	4-5	4-5	4	4	Υ	

# Allround best value to customer: VIOFLON PUD



#### Allround best value to customer: VIOFLON PUD

Vioflon PUD dyes provide high wash fastness for polyester and its blends, especially to meet the high wash fastness requirements on difficult-to-dye fabrics, such as: polyester-spandex, microfiber, polyester-nylon fabrics. These dyes providing excellence cost-performance value to customer.

#### Features of PUD dyes:

- Excellent washing fastness and thermo migration fastness.
- Because of high color yield and good build-up properties, it has less residual in the dyebath and is very cost effective.
- These dyes are especially suitable for microfiber fabrics with a spandex content up to 10%.
- The dye is highly adaptable to different dyeing process, insensitive to water quality and reductive substances in the process, simple to operate, and has a high right-first-time success rate for dyeing.
- Complies with OEKO-TEX® 100 standard and has obtained Bluesign® certification.

	Shade	o.w.f	Shade	o.w.f	Product Name	2010/08/2017/19	Fastness	Sublimation Fastnesss	Perspirat	Bluesign Approval	
						60°C	49°C		Acid	Alkaline	
		0.5%		1.0%	Vioflon Flavine PUD	5	4-5	3-4	3-4	3-4	Υ
		1.0%		2.0%	Vioflon Golden Yellow PUD	5	4	3-4	3-4	3-4	Υ
		1.0%		2.0%	Vioflon Orange PUD	4-5	4	4-5	4-5	4-5	Υ
<u> </u>		1.0%		2.0%	Vioflon Scarlet PUD	5	4-5	3-4	4-5	4-5	Υ
_		1.0%		2.0%	Vioflon Brill. Red PUD	5	5	3-4	4-5	4-5	Y
		1.0%		2.0%	Vioflon Rose Red PUD	5	4-5	3-4	5	4-5	Υ
		1.0%		2.0%	Vioflon Deep Red PUD-B	4-5	4	4-5	3-4	3-4	Y
		1.0%		2.0%	Vioflon Deep Red PUD	5	4	4-5	4-5	4-5	Υ
VIOFLON		1.0%		2.0%	Vioflon Rubine PUD	4	3-4	4-5	3-4	3-4	Υ
PUD		1.0%		2.0%	Vioflon Dark Red PUD	4	3-4	4-5	3-4	3-4	N
100		1.0%		3.0%	Vioflon Turquoise PUD	5	4-5	4	4-5	4-5	N
<u></u>		1.0%		3.0%	Vioflon Brill Blue PUD	5	4-5	3-4	4-5	4-5	Υ
		1.0%		3.0%	Vioflon Navy PUD	5	4-5	4-5	4-5	4-5	Υ
		1.0%		5.0%	Vioflon Navy PUD-RN	5	4-5	4-5	4	4	Υ
		1.0%		5.0%	Vioflon Black PUD-G	4-5	4	4	4	4	Y
		1.0%		5.0%	Vioflon Black PUD-R	4-5	4	4	4-5	4-5	Υ
		1.0%		5.0%	Vioflon Black PUD-HWE	4-5	4-5	4-5	4	4	Υ



#### Redefine high wash fastness: VIOFLON PT

Vioflon PT series is a new set of high performance disperse dyes for polyester and polyester-spandex fabrics with excellent wash fastness. They are especially suitable for the dyeing of fabrics with high spandex content (10 to 20%).

PT dyes adopt advanced formulation and standardization technology. These dyes have excellence disperse properties and prevent the quality issues caused by the presence of metal ions during dyeing process. They have strong adaptability to water hardness and are less sensitive to ions in the water. These properties greatly improve the reproducibility of dyeing and improve the success rate of right-first-time dyeing.

PT dyes have the following advantages:

- These dyes have high color yield and are widely used in the dyeing of polyester and polyester-spandex fabrics, especially suitable for the dyeing of microfiber fabric for apparel with high spandex content.
- These dyes have good build-up and compatibility properties.
- High wet fastness and good staining on fastness on polyester and polyester-spandex fabrics
- Simple reduction clearing (one time clearing) after dyeing to improve production efficiency.
- It is especially recommended to use Vioflon Black WF-PT. It has high color yield and excellent dyeing reproducibility. Dyeing management is simple and convenient because of improved batch-to-batch reproducibility.
- Complies with OEKO-TEX® 100 standard and has obtained Bluesign® certification.

	Shade	o.w.f	Shade	o.w.f	f Product Name	Washing Fastness AATCC 61, 2A	Sublimation Fastnesss	Perspirat	Bluesign Approval	
						49°C		Acid	Alkaline	
		1.0%		2.0%	Vioflon Yellow Brown PT	4	4-5	4-5	4-5	N
		1.0%		2.0%	Vioflon Brill.Scarlet Red PT	5	4-5	5	5	N
		1.0%		2.0%	Vioflon Sports Red PT	4-5	4	5	5	N
		1.0%		2.0%	Vioflon Deep Red PT	5	5	4-5	5	Υ
		1.0%		2.0%	Vioflon Rubine PT	4-5	5	5	4-5	N
		1.0%	*	2.0%	Vioflon Rubber Red PT	4	4-5	4-5	5	N
		1.0%		2.0%	Vioflon Brill. Red PT-N	5	4-5	4-5	4-5	N
VIOFLON		1.0%		2.0%	Vioflon Turquoise PTS	4-5	4	4-5	4-5	N
\$5.00.000000000000000000000000000000000		1.0%		2.0%	Vioflon Brill.Blue PT	4	4-5	4-5	4-5	N
PT		1.0%		3.0%	Vioflon Navy PT	4	4-5	4	4	Υ
		1.0%		5.0%	Vioflon Black PT	4	4	4-5	4-5	Υ
		1.0%		5.0%	Vioflon Black PT-D	4	4-5	4	4	Υ
		1.0%		5.0%	Vioflon Navy PT-HS	4	4	4	4	N
		1.0%		5.0%	Vioflon Black PT-HS	4	4	4-5	4-5	N
		1.0%		3.0%	Vioflon Navy PT-RS	4	3-4	4-5	4-5	N
		1.0%		5.0%	Vioflon Black PT-NS	4	4	4-5	4-5	N



#### Highest standard to meet most difficult requirements:

#### **VIOFLON PTA**

Vioflon PTA dyes are a new set of disperse dyes developed for super high wash and sublimation fastness application. These dyes are suitable for dyeing polyester and polyester-spandex fabrics. These dyes are especially suitable for high temperature heat setting process of fabrics.

PTA series dyes adopt advanced standardization technology for dyes finishing. Dyes have excellent dispersion properties for metal ion complexes. They are less sensitive to water quality and metal ions; therefore they have good adaptability to the dyeing process, greatly improve batch-to-batch reproducibility and lead to a high success rate of right-first-time dyeing.

PTA series dyes have the following advantages:

- These dyes have high color yield, especially suitable for dark shades of pure polyester and polyester-spandex fabrics.
- These dyes solve the problem of resistance to metal ions such as magnesium and iron, and improve dyeing process reproducibility.
- These dyes have excellent sublimation fastness and soaping fastness in AATCC 2A and ISO105 C2S testing, especially suitable for high temperature compression molding.
- Complies with OEKO-TEX® 100 standard.

	Shade	o.w.f	Shade	o.w.f	Product Name	Washing Fastness AATCC 61, 2A	Sublimation A Fastnesss	Perspirat	Bluesign Approval	
						49°C		Acid	Alkaline	4950
		1.0%		2.0%	Vioflon Yellow Brown PTA	4-5	4-5	4	4	N
		1.0%		2.0%	Vioflon Rubine PTA	4-5	4	4	4	N
		1.0%		2.0%	Vioflon Red PTA	4-5	4	4-5	4-5	N
		1.0%		3.0%	Vioflon Scarlet PTA	4-5	4-5	3-4	3-4	N
VIORION		1.0%		2.0%	Vioflon Blue PTA	4-5	4-5	4-5	4-5	N
VIOFLON		1.0%		3.0%	Vioflon Navy Blue PTA	4	4	4-5	4-5	N
PTA		1.0%		5.0%	Vioflon Black PTA	4	4-5	4	4	N
		1.0%		5.0%	Vioflon Black PTA-HSR	4-5	4-5	4-5	4-5	N
		1.0%		5.0%	Vioflon Black PTA-HSG	4-5	4-5	4-5	4-5	N
		1.0%		3.0%	Vioflon Navy PTA-HS	4-5	4-5	4-5	4-5	N