








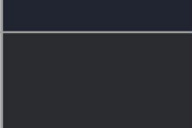


Vinyl sulfone range showing superior purity and solubility

Sumifix		%owf	Application
Yellow 2GL(A) cc.		2.0	Good leveling, lemon yellow dye with good build up in exhaust dyeing.
Yellow GR 150%		2.0	Cold pad batch standard yellow for trichromy with good alkaline stability.
Brill. Orange 3R 135%		2.0	Standard orange/red for trichromatic dyeing in Cold Pad Batch.
Brill. Red G Special		2.0	Good build up and wash off properties with excellent alkaline stability.
Red BB 150% gran.		2.0	Standard red for trichromatic dyeing in Cold Pad Batch.
Brill. Blue R special		3.0	High stability brilliant blue for Cold Pad Batch dyeing.
Brill. Blue R 150%		2.0	Highly concentrated brilliant blue for royal blue shades in exhaust dyeing.
Turquoise Blue G Conc.*		2.0	Excellent quality, high solubility & alkaline stability for all applications.
Black B(A) 150% gran.		4.0	High quality pure black for navy & black shades in exhaust and Cold Pad Batch dyeing.
Black EX(A) Conc. gran.		4.0	High quality full black with good wet fastnesses.

*Sumireact

Properties		Yellow 2GL(A) cc.	Yellow GR 150%	Brill. Orange 3R	Brill. Red G Special	Red BB 150% gran.	Brill. Blue R	Brill. Blue R 150%	Turquoise Blue G*	Black B 150% gran.	Black EX(A) Conc.	
Swatches dyeing depth (% o.w.f.)		2.0	2.0	2.0	2.0	2.0	3.0	2.0	2.0	4.0	4.0	
Fastness properties	Chlorinated water (20ppm)	2	1-2	2	1-2	2	2-3	2-3	1-2	2	1-2	
	Perspiration contact	Staining on cotton	5 5	5 5	5 5	5 5	5 5	5 5	5 5	3-4 3	5 5	5 5
		Color change	5 5	5 5	5 5	5 5	4-5 4-5	4-5 5	4-5 5	4-5 4-5	5 5	5 5
	Washing 60°C	Staining on cotton	5	5	5	5	4	5	5	4-5	5	5
		Color change	5	5	5	5	5	5	5	4-5	5	4-5
	Perspiration light	Alkaline	4-5	3-4	3	2	2-3	5	5	3	4	3-4
		Acid	4-5	3-4	3	2-3	3	5	5	3	4	4
Light		5<	5<	5	4	4-5	5<	5<	4-5	4	3	
Dyeing properties	Dischargeability	(+)	+	+	+	+	-	-	(+)	+	+	
	Migration properties	+	+	+	+	+	(+)	(+)	+	+	+	
	Optimum Exhaust dyeing temp. (°C)	50	50	50	50	50	50	50	70	50	50	
Applicability	Printing	(+) +	(+) +	(+) +	(+) +	(+) +	(+) +	- +	(+) +	(+) +	(+) +	
	Continuous dyeing	+ +	+ +	+ +	+ +	(+) +	+ +	- +	+ +	+ +	+ +	
	Cold Pad Batch dyeing	+	+	-	(+)	(+)	+	-	(+)	+	+	
	Exhaust dyeing	+	+	+	(+)	+	+	+	+	+	+	
Solubility	Salt (Na ₂ SO ₄ = 30g/l)	70	70	70	70	40	100<	80	20	100<	100<	
	Water, 25°C (g/l)	100	100	90<	100<	80	150<	100	65<	150<	150<	
Arylamine free fabric dyeings (<5ppm)		0	0	0	0	0	0	0	0	X	Δ	

Legend for the table

Quotation of applicability

- + : Suitable
- (+) : Limited suitability
- : Unsuitable

Continuous dyeing

- Upper : One bath pad-dry steam
- Lower : Two bath pad-dry steam

Printing

- Upper : One phase process
- Lower : Two phase process

Fastness

- Light : ISO 105/B02, Xenon Arc lamp
- Perspiration light : ATTS 25.7kJ/m², 420nm, 0.7W/m² Acid (upper) / Alkaline (lower)
- Washing : M&S C4A
- Perspiration contact : ISO 105 E04 Acid (upper) / Alkaline (lower)
- Chlorinated water : ISO 105 E03

- 0 : Suitable
- X : Not –suitable
- Δ : Limited concentration*

Trichromatic combinations in CPB

Orange Shade

Sumifix Supra Yellow 3RF 150%	1.921 g/l
Sumifix Br Orange 3R 135%	3.375 g/l
Sumifix Br Blue R spl	0.087 g/l
Total dye concentration	5.383 g/l



Blue Shade

Sumifix Br Blue R spl	34.171 g/l
Sumireact Turquoise Blue	4.828 g/l
Total dye concentration	38.999 g/l



Beige Shade

Sumifix Supra Yellow 3RF 150%	0.351 g/l
Sumifix Br. Orange 3R 135%	0.806 g/l
Sumifix Br. Blue R spl	0.387 g/l
Total dye concentration	1.544 g/l

