






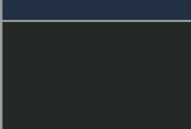


Innovative cost saving poly-functional range designed for medium to deep shades

Sumireact Supra S-HBU		%owf	Application
Supra Yellow S-HBU		2.0	High build-up yellow dye for standard trichromatic combinations: pale to deep shades. Light fast and dischargeable.
Supra Golden Yellow S-HBU		2.0	Highly concentrated yellow dye, standard yellow element for medium and deep trichromatic combinations. Applicable in cotton dyeing: exhaust and CPB,
Supra Red S-HBU		2.0	Concentrated red for medium and deep shades. Low metamerism combinations
Supra Deep Red S-HBU		2.0	Very high concentration chery red for self shades and very deep trichromatic combinations.
Supra Carmine S-HBU		2.0	Brilliant red for medium to deep trichromatic combinations ; dischargeable
Supra Crimson S-HBU		2.0	Highly concentrated red dye for medium and deep trichromatic combinations. Applicable in cotton dyeing: exhaust and CPB, limited use on viscose:
Supra Navy S-HBU		4.0	High build-up navy blue dye for medium and deep shades with excellent repeated washing fastness, applicable in exhaust and CPB dyeing.
Ultra Black S-HBU		4.0	High build-up deep black dye with good overall fastnesses.

Properties		Supra Yellow S-HBU	Supra Golden Yellow S-HBU	Supra Red S-HBU	Supra Carmine S-HBU	Supra Deep Red S-HBU	Supra Crimson S-HBU	Supra Navy S-HBU	Ultra Black S-HBU	
		Supra Yellow S-HBU	Supra Golden Yellow S-HBU	Supra Red S-HBU	Supra Carmine S-HBU	Supra Deep Red S-HBU	Supra Crimson S-HBU	Supra Navy S-HBU	Ultra Black S-HBU	
Swatches dyeing depth (% o.w.f.)		2.0	2.0	2.0	2.0	2.0	2.0	4.0	4.0	
Fastness properties	Chlorinated water (20ppm)		3/4	3	4-5	4-5	4-5	4-5	4-5	2
	Perspiration contact	Staining on cotton	4-5	5	4-5	4-5	4-5	4-5	5	5
		Color change	5	4-5	5	5	5	5	4-5	4-5
	Washing 60°C	Staining on cotton	5	5	4-5	4-5	4-5	4-5	4	4-5
		Color change	4-5	5	4-5	4-5	4	4-5	4-5	4-5
	Perspiration light	Alkaline	5	5	3-4	4	4	4-5	3-4	4
		Acid	5	4-5	4	4-5	4	3-4	4	4
	Light		5	5	4-5	4-5	5	5	4-5	4
Dyeing properties	Dischargeability		+	+	-	+	(+)	-	+	+
	Migration properties		+	(+)	+	+	+	(+)	+	+
	Optimum Exhaust dyeing temp. (°C)		60	60	60	60	60	60	60	50
Applicability	Printing		-	(+)	(+)	(+)	(+)	(+)	(+)	(+)
	Continuous dyeing		-	(+)	(+)	(+)	+	(+)	(+)	+
	Cold Pad Batch dyeing		-	(+)	+	+	+	+	+	+
	Exhaust dyeing		+	+	+	+	+	+	+	+
Solubility	Salt (Na ₂ SO ₄ = 30g/l)		40	100	100	100	100	100	100	100
	Water, 25°C (g/l)		100	100<	100<	100<	100	100<	100	100<
Arylamine free fabric dyeings (<5ppm)		0	0	0	0	0	0	0	X	

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

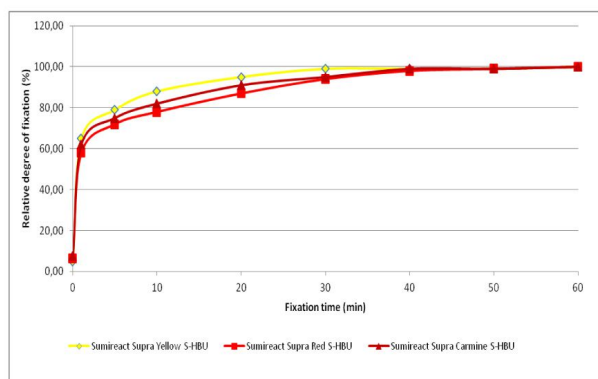
- Light : ISO 105/B02, Xenon Arc lamp
- Perspiration light : ATTS 25.7kJ/m², 420nm, 0.7W/m² Acid (upper) / Alkaline (lower)
- Washing : M&S C4A
- Perspiration contact : ISO 105 E04 Acid (upper) / Alkaline (lower)
- Chlorinated water : ISO 105 E03

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

Trichromatic combinations

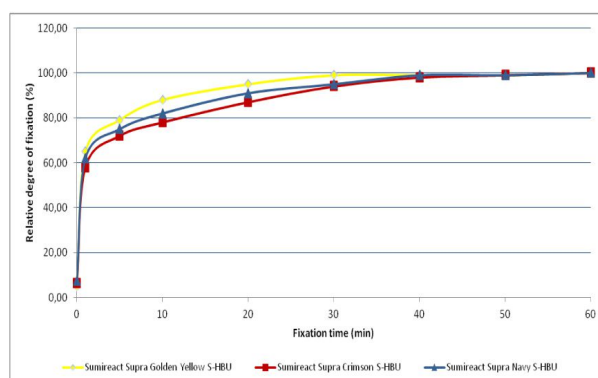
Fully dischargeable red

Sumireact Supra Yellow S-HBU	0.8%
Sumireact Supra Red S-HBU	3.2%
Sumireact Supra Carmine S-HBU	1.0%
Total dye concentration	5.0%



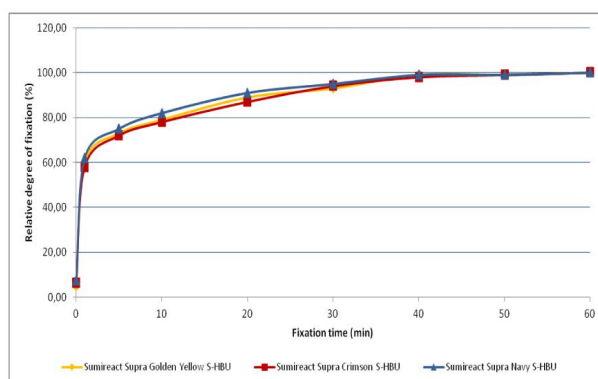
Bottle Green Shade

Sumireact Supra Yellow S-HBU	3.5%
Sumireact Supra Crimson S-HBU	0.5%
Sumireact Supra Navy S-HBU	1.5%
Total dye concentration	5.0%



Brown Shade

Sumireact Supra Golden Yellow S-HBU	1.5%
Sumireact Supra Crimson S-HBU	0.5%
Sumireact Supra Navy S-HBU	0.5%
Total dye concentration	2.5%



Trichromatic combinations recommended for exhaust dyeing on cotton:

Sumireact Supra S-HBU dyes

Standard shades

Shade	Yellow element	Red element	Blue element
Medium to deep	SR SP Yellow S-HBU SR SP Golden Yellow S-HBU	SR SP Crimson S-HBU SR SP Carmine S-HBU	SR SP Navy S-HBU
Deep	SR SP Yellow S-HBU SR SP Golden Yellow S-HBU	SR SP Crimson S-HBU SR SP Deep Red S-HBU SR SP Carmine S-HBU	SR SP Navy S-HBU

Non Standard Shades

Shade	Yellow element	Red element	Blue element
Scarlet and Marlboro Red	SF SP Lemon Yellow E-XF SR SP Yellow S-HBU	SR SP Red S-PX SF SP Scarlet E-XF SR SP Red S-HBU	SR SP Blue S-PX SF SP Blue E-XF
Deep Red	SR SP Yellow S-HBU SR SP Golden Yellow S-HBU	SR SP Deep Red S-HBU SR SP Crimson S-HBU SR SP Carmine S-HBU	R SP Blue S-PX SF SP Blue E-XF
Black shades	SR SP Yellow S-HBU SR SP Golden Yellow S-HBU	SR SP Crimson S-HBU SR SP Deep Red S-HBU SR SP Carmine S-HBU	SR Jet Black S-PX SR Ultra Black S-HBU SF Black B(A) 150% gran SF Black EX(A) Conc gran SR SP Marine S-PX