



VAT DYES: GAMMANTHREN

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Gammacolor offers a wide range of vat dyes, available in powder or liquid form.

Gammanthren dyes are insoluble in water, that's why they need to be reduced with sodium hydrosulphite and caustic soda to allow dyeing.

As a product of the reduction a leuco vat dye is formed, while at the end of dyeing the starting dye is formed again, after oxidation (by water peroxide)

Dyeing method:

there are 4 main different application methods: IK, IW, IN, IN Special.

They differ from one another for the quantity of caustic soda and hydrosulphite required, and for dyeing temperature.

Vat dyes offer the best overall fastness on cellulosic fibers.

Metodo di applicazione generale:

-installare il bagno di tintura a freddo, con 3% p.m. di Egaltext plus

-far circolare a freddo per 15'

-aggiungere 1cc/l Netzer NF

- Disperdere il colorante in acqua calda (50-60°C) ed aggiungere la dispersione al bagno di tintura, previa filtrazione.

- aggiungere la soda caustica al bagno secondo il metodo relativo al colorante (IW, IN, IN speciale, ecc)

-aggiungere 1cc/l di Egaltext P

-aggiungere la quantità prevista di idrosolfito, tenendo conto del volume di aria dell'apparecchio utilizzato.

-Aggiungere l'idrosolfito sodico e portare alla temperatura desiderata

-portare alla temperatura di 80°C e mantenere per 30'

-abbassare la temperatura a 60°C e mantenere per 15'

-senza scaricare, lavare per troppo pieno freddo fino a limpido e pH circa =10

-aggiungere :15cc/l di tamponante Gamma liquido, 0,5cc/l di acqua ossigenata 130v e 2cc/l Gamol PLUS

- far circolare a 60°C per 20 minuti

-scaricare il bagno, ricaricare e neutralizzare con acido acetico

-scaricare il bagno , aggiungere 2cc/l di Gamol PLUS e saponare a 100°C per almeno 25 minuti

-scaricare e sciacquare.

General application method:

-install the cold dye bath, with 3% p.m. of Egaltext plus

-circulate cold for 15'

-add 1cc/l Netzer NF

- Disperse the dye in hot water (50-60°C) and add the dispersion to the dye bath, after filtration.

- add caustic soda to the bath according to the dye method (IW, IN, special IN, etc.)

- add 1cc/l of Egaltext P

- add the required quantity of hydrosulphite, taking into account the volume of air of the dyeing machine used.
- Add sodium hydrosulphite and bring to the desired temperature
- bring to a temperature of 80°C and keep for 30'
- lower the temperature to 60°C and keep it for 15'
- without releasing dyebath, wash by cold overflow until clear and about pH =10
- add :15cc/l of Tamponante gamma liq., 0.5cc/l of hydrogen peroxide 130v and 2cc/l Gamol PLUS
- circulate at 60°C for 20 minutes
- release dyebath, recharge and neutralize with acetic acid
- drain the bath, add 2cc/l of Gamol PLUS and soap at 100°C for at least 25 minutes
- drain and rinse.

Legenda tabelle:

+: più; ++: molto più; G: verde; Y:giallo; R:rosso; B: blu. P:puro.O: opaco

IN*: soda caustica come per metodo IN;idrosolfito come per metodo IW. Le quantità di soda caustica ed idrosolfito dipendono inoltre dal macchinario usato, tipo di merce tinta e rapporto bagno.

Quando sono riportati 3 valori: cambiamento di tono, sporcamento cotone; sporcamento raion.

Quando sono riportati 2 valori: cambiamento di tono, sporcamento cotone

Xenotest: 1/1;1/3;1/12 del tono.

Notes: for each dye there are two values of dyeing percentages. The one at the top is a reference for the indicated fastness values, the one at the bottom refers to the attached dyed fabric.

N.b: the reported values are indicative and do not constitute a guarantee.

Gammanthren	%	name	CI	App. method/ max T	Color change after soaping	Light fastness	Washing 95°C	Sea water	Acidic/alkaline perspiration
				Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchlorethylene	Bleaching	Bleaching NaClO	mercerization
	1	Giallo GCN	2	IN 115°C	++G	4-5 4-5 3-4	4-5 5 5	5 5 5	4-5 4-5
			4-5 5	5 5	5 5 5	4-5 5	5 5 5	5 5	4-5 5
	1	Giallo 5GF	46	IW 115°C	+G	6 5-6 4-5	4-5 5 5	4-5 5 5	5 5
			5 5	4 5	5 5 5	4-5 4-5	4-5 5 5	4-5 5	2R 5
	1	Giallo F3GC	33	IW 98°C	+P	6-7 6-7 6	4-5 5 5	5 5 5	5 5
			4-5 5	5 5	4 5 5	4-5 5	4-5 5 5	4 5	4-5 5
	1 , 5	Giallo 3 RT	O11	IW 98°C	+P	6-7 6-7 6	4-5 5 5	4-5 5 5	4-5 5
			4-5 5	3Y 5	4-5 5 5	4-5 5	4-5 5 5	4-5 5	5 5

Gammanthren	%	name	CI	App. method/ max T	Color change after soaping	Light fastness	Washing 95°C	Sea water	Acidic/alkaline perspiration
				Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchlorethylene	Bleaching	Bleaching NaClO	mercerization
	1	Arancio oro 3G	15	IW 115°C	+P ++G	6-7 6 5	5 5 5	5 5 5	5 5
			4R 5	4Y 5	4-5 5 5	4-5 5	4-5 5 5	5 5	4-5 5
	1	Arancio oro G	9	IN 115°C	++Y	5-6 4-5 3-4	4-5 5 5	4-5 5 5	4 4-5
			4-5 5	4Y 5	4-5 5 5	4Y 5	4-5 5 5	4-5 5	5 5
	1 , 5	Arancio brill GR	7	IN 98°C	+P	6-7 6 5	4-5 5 5	4-5 5 5	4-5 4-5
			5 5	4Y 4-5	4-5 5 5	4-5 5	4-5 5 5	5 5	5 5
	1 , 5	Arancio RRTS	2	IN 115°C	+P	5-6 5 4	4-5 5 5	4-5 5 5	5 5
			4Y 5	3Y 5	4-5 5 5	4-5 5	4-5 5 5	4-5 5	4Y 5

Gammanthren	%	name	Cl	App. method/ max T	Color change after soaping	Light fastness	Washing 95°C	Sea water	Acidic/alkaline perspiration
			Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchlorethylene	Boiling with NaOH+tamponant e γ liq.	Bleaching	Bleaching NaClO	mercerization
	2	Rosso LGG	32	IW 80°C	3-4Y	5-6 5 4	4-5 4-5 4-5	4-5 4-5 4-5	4-5 5
			4-5 5	3-4Y 4-5	4-5 4-5 4-5	4 4	3-4 4-5 4-5	4 5	4Y 5
	2	Rosso FBB	10	IW 115°C	+B	7 6-7 5	5 5 5	5 5 5	4 5
			4B 5	4Y 5	4-5 5 5	4-5 5	4-5 5 5	5 5	4Y 5
	2	Rosso F3B	31	IW	+O	6-7 6 -	5 5 5		
			4B 5				5	5	5
	2	Scarl. GG	14	IN 90°C	+O +B	7 6-7 6	5 5 4-5		5 5
			4-5 5	4G 4-5	5 5 5	4-5 4-5	4-5 4-5 5	4-5 4-5 5	5 5

Gammanthren	%	name	CI	App. method/ max T	Color change after soaping	Light fastness	Washing 95°C	Sea water	Acidic/alkaline perspiration
				Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchlorethylene	Bleaching	Bleaching NaClO	mercerization
	2	Scarl. EFR	54	IN 90°C	+Y	6-7 6-7 6	4-5 4-5 4-5		
			4-5 5	4Y 5	4-5 5 5	4-5 4-5	4-5 5 5	4-5 5 5	4Y 5
	3	Bord. HRR	15	IN 98°C	+B +P	6-7 6 5-6	4-5 4-5 4-5	4-5 5 5	4 5
			4B 5	4Y 5	3-4 4 4	4-5 5	4-5 4-5 4-5	4-5 5	3-4 4-5
	1	Rubino R 150%	13	IN 90°C	+B	6 5-6 4	5 5 5	5 5 4	4-5 5
			5 5	4-5 5	4-5 5 5	4-5 5	4-5 5 5	4-5 5	5 5
	1	Rosa brill R	1	IW 98°C	++Y	6 5-6 4	4-5 5 5	4-5 5 5	4 4-5
			4Y 5	4-5 5	4-5 5 5	4-5 5	4-5 5 5	4-5 5	4Y 5

Gammanthren	%	name	CI	App. method/ max T	Color change after soaping	Light fastness	Washing 95°C	Sea water	Acidic/alkaline perspiration
			Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchlorethylene	Boiling with NaOH+tamponant e y liq.	Bleaching	Bleaching NaClO	mercerization
	2	Rosso FGL	mix	IN 90°C	+P +G	6-7 6 5	4-5 5 4-5	4-5 5 5	5 4-5
			4-5B 5	4Y 4-5	4-5 5 5	4-5 5	4-5 5 5	4-5 5	4-5Y 5
	1 , 5	Violetto brill RR	Viol. 1	IN 115°C +B	++R	6 5 4	4-5 4-5 4-5	4R 5 5	4-5 5
			2-3R 5	3B 3B	4-5 5 5	4R 5	4-5 5 5	4-5 5	4R 5
	1 , 2	Violetto rosso RRN	Viol. 3	IW 90°C	++R	6 5 4	5 5 4-5		4-5 4-5
			4R 5	4B 4B	4-5	4G 5	4-5 5 5	4-5 5 5	3-4G 5
	2	Violetto brill 3B	Viol. 9	IN 115°C +B	+R	6 5 4	4-5 5 5	4-R 5 5	4-5 5
			3R 5	3B 3-4B	4-5 5 5	4-R 5	4-5 5 5	5 5	3R 5

Gammanthren	%	name	CI	App. method/ max T	Color change after soaping	Light fastness	Washing 95°C	Sea water	Acidic/alkaline perspiration
			Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchloroethylene	Boiling with NaOH+tamponant e y liq.	Bleaching	Bleaching NaClO	mercerization
	2	Violetto B	13	IW	+P +R	7 6-7 5-6	4-5 4-5 4-5		
			4-5 5	4R 4-5		3R 2	4-5 4-5 5	4-5 5	4R 5
	2 , 5	Blu scuro BOA	20	IN 115°C	++R	7-8 6-7 5	4-5 5 5	4-R 5 5	4-5 5
			3-4R 5	3-4Y 3-4Y	4-5 5 5	4-5 5	4-5 5 5	4-5 5	4-5 5
	3	Blu scuro DB	mix	IN 115°C	++R	7-8 7-8 6	4-5 5 5	4-5 5 5	5 5
			4R 5	3-4Y 3-4Y	4-5 5 5	4-5 5	4-5 5 5	3-4Y 5	4-5 5
	3	Blu marino TRR	22	IN 90°C+ R	++R	6-7 5 4	4-5 5 5	4-5 5 5	4-5 4-5
			4-5 5	3-4R 4-5	4-5 3-4 3-4	4R 5	4R 5 5	4-5 5	4-5R 5

Gammanthren	%	name	Cl	App. method/ max T	Color change after soaping	Light fastness	Washing 95°C	Sea water	Acidic/alkaline perspiration
			Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchlorethylene	Boiling with NaOH+tamponant e y liq.	Bleaching	Bleaching NaClO	mercerization
	3	Blu Marino 1209	mix	IN		6 5 5	5 5 4-5		
			4R 5	3-4Y 3-4Y				4	
	3	Blu marino AR	18	IN 90°C +R	++R	6-7 4-5 3-4	5 4-5 4-5	4-5 5 5	5 5
			4R 5	4R 4-5	4 4 4	4R 4	4-5 5 5	4 5	4-5R 5
	3	Blu marino G	16	IN 115°C +R	++R	7 6 5	4-5 4-5 4-5	5 5 5	5 5
			4R 5	3-4R 4Y	4-5 5 5	4R 4-5	4 5 5	4-5 5	4R 5
	1 , 5	Blu brill. RCL	mix	IN* 115°C	+R	7 7 6	5 5 5	5 5 5	4-5 5
			3-4R 5	4Y 4Y4	4-5 5 5	4-5 5	4-5 5 5	4Y 5	4-5 5

Gammanthren	%	name	Cl	App. method/ max T	Color change after soaping	Light fastness	Washing 95°C	Sea water	Acidic/alkaline perspiration
			Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchlorethylene	Boiling with NaOH+tamponant e y liq.	Bleaching	Bleaching NaClO	mercerization
	2	Blu RS	4	IN* 115°C	++R	7-8 7-8 7	4-5 5 5	5 5 5	5 5 5
			4-5 5	4Y 4Y	4-5 5 5	4-5 5	4-5 5 5	2Y 5	3Y 5
	1 , 5	Blu HT	66	IW 115°C	+P	7-8 7 6	4-5 5 5	4-5 5 5	5 5 5
			4-5 5	4-5 4-5	4-5 5 5	4-5 5	4-5 5 5	4-5 5	4-5 5
	1 , 5	Blu BC	6	IN* 115°C	+R	7-8 7-8 7	4-5 5 5	5 5 5	4-5 5
			4-5 5	4Y 4Y	4-5 5 5	4-5 5	4-5 5 5	2-3Y 5	4Y 5
	1 , 5	Blu GC	14	IN* 115°C	++R	7-8 7-8 7	5 5 5	5 5 5	4-5 5
			5 5	4Y 4Y	4-5 5 5	4-5 5	4-5 5 5	2Y 5	3Y 5

Gammanthren	%	name	CI	App. method/ max T	Color change after soaping	Light fastness	Washing 95°C	Sea water	Acidic/alkaline perspiration
			Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchlorethylene	Boiling with NaOH+tamponant e x liq.	Bleaching	Bleaching NaClO	mercerization
	1	Verde brill FFB	1	IN 115°C	+P	7-8 7 6	4-5 5 5	4-5 5 5	5 5 5
			4Y 5	2-3B 4-5	4-5 5 5	4-5 5	4-5 4-5 4-5	4-5 5	4-5 5
	2	Verde oliva B	3	IN 115°C	++P ++G	8 7-8 7	4-5 5 5	5 5 5	5 5 5
			4-5 5	4Y 5	4-5 5 5	4 5	4-5 5 5	4 5	4Y 5
	2	Kaki 2-G	Green 8	IN 90°C	+G	7-8 7 6	5 5 5	4-5 5 5	4-5 4-5
			4-5 5	4Y 4-5	5 5 5	4 5	4-5 5 5	4 5	4-5 5
	2	Bruno R	3	IW 98°C	+R	7 6-7 6-7	5 5 5	4-5 5 5	4 4-5
			4-5 5	4Y 4-5	5 5 5	4-5 5	4-5 5 5	5 5	4-5 5

Gammanthren	%	name	CI	App. method/ max T	Color change after soaping	Light fastness	Washing 95°C	Sea water	Acidic/alkaline perspiration
			Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchlorethylene	Boiling with NaOH+tamponant e y liq.	Bleaching	Bleaching NaClO	mercerization
	2	Bruno BR	1	IW 98°C	+Y	7 6-7 6	5 5 5	5 5 5	4-5 4-5
			4-5 5	4-5 5	5 5 5	5 5	4-5 5 5	4-5 5	4-5 5
	2	Bruno GG	mix	IW 85°C	+G	7 6-7 6	4-5 5 5	4-5 5 5	4 4-5
			4Y 5	4R 4-5	5 5 5	4 4-5	4-5 5 5	4-5 5	4-5 5
	2	Bruno G	mix	IW 85°C	+G	7 6-7 6	4-5 5 5	4-5 5 5	4 4-5
			4Y 5	4R 4-5	5 5 5	4 4-5	4-5 5 5	4-5 5	4-5 5
	2	Bruno AL	mix	IW	+Y	7 6-7 6-7	5 5 4-5		
			4 5	3 5				4 4	

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			Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchlorethylene	Boiling with NaOH+tamponant e γ liq.	Bleaching	Bleaching NaClO	mercerization
	2	Bruno LBG	mix	IN, IW	+Y	7 6-7 6-7	5 5 4-5		
			4 5	4 4-5				4-5 4-5	
	2	Oliva R	Black 27	IW 85°C	++G	7 6-7 6	4-5 5 5	4 5 5	4 4-5
			5 5	4Y 5	4-5 5 5	4Y 5	4-5 5 5	4-5 5	3-4Y 5
	2	Oliva T	Black 25	INS 115°C	+P	8 7-8 7	4-5 5 5	4-5 5 5	5 5
			5 5	4Y 5	4-5 5 5	4-5 5	4-5 5 5	4 5	4-5 5
	2	Oliva MW	Green 13	IN 115°C	+B	7-8 7-8 6	4-5 5 5	5 5 5	5 5
			4Y 5	3-4B 5	4-5 5 5	4-5 5	4-5 5 5	3Y 5	4Y 5

Gammanthren	%	name	Cl	App. method/ max T	Color change after soaping	Light fastness	Washing 95°C	Sea water	Acidic/alkaline perspiration
			Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchloroethylene	Boiling with NaOH+tamponant e γ liq.	Bleaching	Bleaching NaClO	mercerization
	1	Grigio CL/N	mix	IW 80°C	+R	6-7 6 5-6	5 5 5	4-5 4-5 4-5	4-5 5
			3 5	3-4 5	4 4-5 4-5	4-5 4-5	4-5 5 5	4-5 5	4 4-5
	1	Grigio VARB	mix	IN 99°C	+P+G	6-7 6-7 6	4-5R 4-5 4-5	4-5 4-5 4-5	4-5 5
			4 4-5	4R 5	4-5 5 5	4-5 4-5	4-5 4-5 4-5	4Y 5	4Y 4-5
	2	Grigio W-N	mix	IW 98°C	+Y	7 6-7 6-7	4-5 4-5 4-5	4-5 4-5 4-5	5 5
			4-5 5	4-5 5	4-5 5 5	4-5 5	4-5 5 5	4-5 5	4-5 5
	1	Grigio 5607	mix	IW		6 6 6	5 5 4-5		
			3-4 5	4 5				4-5 4-5	

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			Waterdrop: immediately/ after 4 h	Dry ironing: immediately/ after 4 h	perchlorethylene	Boiling with NaOH+tamponant e y liq.	Bleaching	Bleaching NaClO	mercerization
	1	Nero RBS	Black 9	IN 115°C	+R	6 5-6 5	4-5 5 5	4-5 4-5 5	5 5
			4-5 5	3-4Y 4	4 4-5 5	4-5 5	4-5 5 5	3-4R 5	4R 5
	8	Nero diretto RB	Black 9	Blacks 115°C	+R	NERO 7-8 5 5	4-5 4-5 4-5	5 5 5	4-5 4-5
			5 5	4-5 5	4-5 4 4-5	4-5 4-5	4-5 4-5 5	4-5 5	4-5 4-5
	8	Nero diretto R	Mix	Blacks 115°C	++R	NERO 8	4-5 5 5	5 5 5	4-5 4-5
			4-5R 5	4 4-5	4 4-5 4-5	4-5 4-5	4-5 5 5	4-5 5	4Y 4-5
	8	Nero diretto 5589	Mix	Blacks 115°C	++R	NERO 8	4-5 5 5	5 5 5	4-5 5
			4-5R 5	3-4 4	4-5 5 5	4-5 5	4-5 5 5	4-5 5	4-5 5



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