

Recron[®] FS

Due Care Guidelines

High Quality Flame Retardant Polyesters from



- Modified polyester with in-built inherent FR properties
- Properties are mostly similar to that of regular Recron Polyesters
- Softer in nature with better dye uptake
- Implementation of suggested precautions during all steps will ensure FR efficacy is maintained in finished product
- All auxiliaries used in down stream process should be thoroughly checked ,validated and must be easily washable from finished product.
- This is true even if the auxiliaries themselves possess flame retardant (FR) characteristics, supplier should be asked for wash recipes.
- In all cases preliminary trials are necessary

All information shared in this document are indicative and these need to be adopted based upon the actual hardware

- In Recron® FS POY – Draw Tension is on higher side, higher T2(Tension) by 20%
- Texturing (Suggested parameters)
 1. Speed – 600 MPM
 2. D/Y(Disc to Yarn ratio) slightly on higher side by 7 - 8% to reduce T2
 3. Temperatures – Primary 170 - 180oC (2 Meter Heater)
 4. Temperatures – Secondary 140 - 150oC
 5. Conning Oil \leq 1.0 %
- Release Textured yarn through standard procedure

Being modified polymer , gentle treatment is suggested

Recron® Fire Safe: Dyeing



- Dyeing procedure is similar to Regular polyester
- Use standard disperse dyestuffs for dyeing
- Scouring process is extremely important to remove external material
- Silicone based Defoamers / Softeners etc. must be avoided
- Reduction clearing especially for Medium & Dark colors can be done using Hydro / Soda ash
- Additives, auxiliaries and lubricants even in form of residues must be completely removed
- For special needs such as outdoor fabrics , use of suitable UV absorbers is suggested such as UV Fast HLF New (by Huntsman) , Rayosan PES (by Archroma) or Permalose UVA EP (by Croda) during Disperse Dyeing.
- Information provided in this document are the guidelines for the processors, and for taking due precautions in various stages of production, however error or variability of any nature might affect the intended outcome .

Caution

- ❖ NOT to use Caustic Soda or Oxalic acid
- ❖ Final Product must be free of Silicon or any lubricant

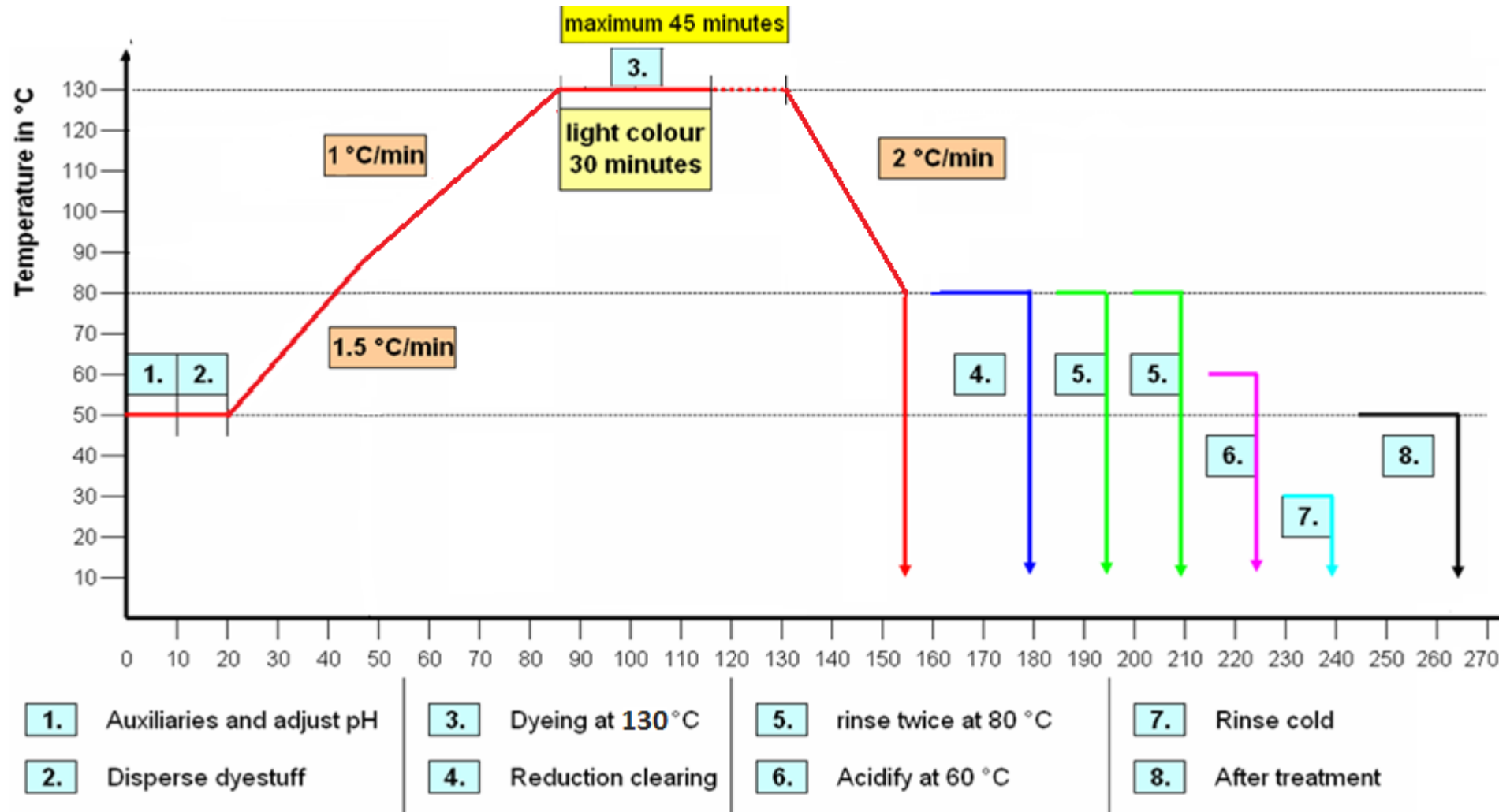
Scouring Process: Suggestions

Chemicals	1	2	3	4	5
	Emulsion	Soda Ash Scouring	Hot Rinsing-1	Rinsing & Neutralisation	Cold Rinsing
Emulsogen EL 360 or equivalent Emulsifier	2 gpl				
Sandozin MRN / Hostapal MRN or equivalent non-ionic detergent	1 gpl	0.5 gpl			
Soda Ash		2 gpl			
Acetic Acid (60%)				0.5 gpl	
Temperature	60°C	85°C	80°C	60°C / Ambient	Ambient
Time	20 min	30 min	10 min	10 min	5 min

The above information is based upon the effectiveness of Textile Auxiliaries mentioned (by Clariant). Similar products from other suppliers may also be used.

Depending upon the Textile construction and available machinery, optimization may be necessary

Dyeing: Diagram



- Temp gradient from 50°C till 90°C is 1.5°C/min
- Temp gradient from 90°C till 130°C is 1°C/min
- Post Dyeing , hot blast (high temp. drain) is preferable for Fibre / Yarn

Dyeing: Typical Recipe

- Disperse dyestuffs
 - 1 - 2 g/l Leomin OR - levelling agent, to reduce with shade increase
 - 0.3 g/l Levegal DLP - as dispersing agent
 - 1 - 2 g/l Sodium Acetate- as pH Buffer
 - 1 – 2g/l Acetic acid - to adjust pH to 4.5
1. Start dyeing at 50 °C
 2. Heat to 90°C at 1,5 °C/min
 3. Heat from 90 – 125°C at 1 °C/min
 4. Dye for 30 to 45 minutes
 5. Hot blast to avoid oligomer deposition
 6. Drain the bath

Reduction Clearing

Treat for 20 minutes at 80 °C with:

- 4 g/l Soda ash (not with caustic soda)
- 3 g/l Sodium hydrosulphite
- 0.5 g/l Sandozin MRN
- 0.3 g/l Levegal DLP

1. Rinse twice at 80°C
2. Neutralize for 10 minutes at 60 °C with acetic acid to achieve pH of 6-7
3. Rinse at 50 °C

- ✓ During RC, pH to be maintained around 10.5
- ✓ After rinsing , it is suggested to boil a small sample in DM water to confirm that all Alkali is removed from the fabric during RC process. (Litmus Test)

After Treatment: Finishing



- To reduce friction on the fiber/yarn , it is necessary to apply lubricants after the dyeing.
- Use of any Silicon based lubricants must be avoided
- Lubricants and additives applied , must be easily removable.

Treat for 20 minutes at 40°C with:

- 2 g/l Leomin KP
- 1 g/l Leomin OR

(any other similar chemicals may also be used)

Certain group of Auxiliary agents even in form of traces may hamper the flame retardant efficacy hence it is important to ensure that all processing steps are carried out with extreme care.

**For Clarification customer should connect with Reliance Local representative.
Rakesh Kapila-Benelux Distributor and representative Recron FS
Mobile: + 32 475 944099 , Casa-blanca@casablancanv.com or rakesh@btiles.be**

**In case of any further issue may also connect with..
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