

FLAME RETARDANT

Advanced Flame Protection • Proven Chemistry

- ✓ **High-performance flame resistance**
- ✓ **Halogen-free & eco-smart**
- ✓ **Wash durability- Durable & Long-Lasting Protection**
- ✓ **Conforms to global standards**
- ✓ **Versatile in applications**

Combustion in textiles occurs when heat breaks down fibres, releasing gases that react with oxygen, sustaining a cycle of burning. Flame retardants interrupt this cycle by reducing flammability and delaying ignition. Our halogen-free, eco-friendly products offer effective flame resistance while minimizing odours from ammonia release. Developed with sustainable chemistry, they also help reduce utility costs without compromising performance.

Quest Noflame PFR (ZDHC level 3 certified)



CHEMISTRY

Based on Aryl Phosphate



FEATURES

- Halogen Free Flame retardant for polyester suited also by exhaust method
- Applied directly in the dyeing process with Disperse Dyes
- Effect achieved is fast to washing & dry cleaning
- High resistance to laundering and dry cleaning
- Non-toxic and safe to use
- Meets low fogging requirement for automotive goods
- Meets test method no.
NFPA 2112 | NFPA 701 | IS 11871



APPLICATIONS & OTHER USES

Formulations recommended:

Exhaustion: 5-20% o.w.f at 130°C during the conventional dyeing process time

Recommended Guideline recipe:

MLR : 1:10

Disperse Dye : X % o.w.m

Quest HPDA (Dispersing agent) : 1 % o.w.m

Quest Level LDG (Leveling agent) : 1 % o.w.m

Quest Noflame PFR (FR) : 2.0 -5.0%

Questacid ECO(pH Control) : 4.5 -5.0

Temperature : 130°C

Time : 45 min at 130°C



TECH. SPECS

● Off-white to milky white emulsion ● Anionic ● 6.0 ± 1.0 ● Dispersible

Quest Noflame NFR



CHEMISTRY

Modified Aryl phosphate



FEATURES

- Exhibits permanent flame retardancy
- Applied directly in the dyeing process with Disperse Dyes
- Effect achieved is fast to washing & dry cleaning
- Halogen Free Flame retardant for nylon suited by exhaust method
- High resistance to laundering and dry cleaning
- Meets low fogging requirement for automotive goods
- Meets test method no.
NFPA 2112 | NFPA 701 | IS 11871
- Non-toxicity and high safety



APPLICATIONS & OTHER USES

Formulations recommended:

Exhaustion: 5-20% o.w.f at 130°C during the conventional dyeing process time

Recommended Guideline recipe:

MLR : 1:10

Acid Dye : X % o.w.m

Quest Level SET (Leveling agent) : 1 % o.w.m

Quest Noflame NFR (FR) : 2.0 -5.0%

Questacid AF (pH Control) : 4.0 -4.5

Temperature : 95°C

Time : 45 min at 95°C



TECH. SPECS

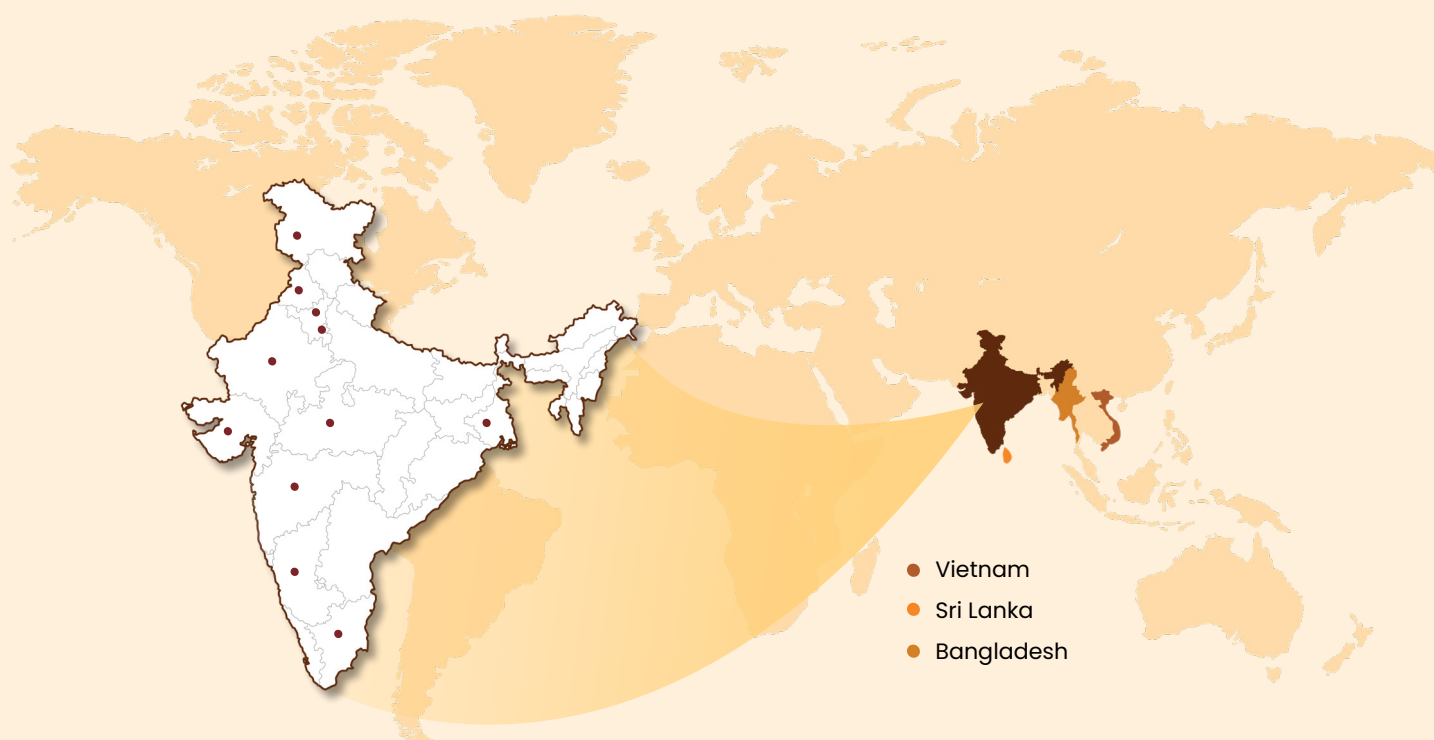
● Off-white to milky white emulsion ● Anionic ● 6.0 ± 1.0 ● Dispersible



Vertical Flame Test



Our Global Footprint



Disclaimer

The information given herein and otherwise supplied to users is based on our general experience and where applicable, on the results of tests on samples of typical manufacture. However, because of the many factors, which are outside our knowledge and control, which can affect the use of these products, we cannot accept liability for any injury, loss or damage resulting from reliance upon such information.



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