

## 10150FRC QEC FR Concentrate

Wilflex QEC FR Concentrate is an additive designed to provide desirable flame retardant properties to Wilflex printing inks. QEC FR Concentrate must be used in effective proportions, processed correctly, and properly fused in the printing process to provide flame retardant properties.

### Highlights

- ▶ Non-phthalate.
- ▶ Compliant with CPSIA 2008 (Consumer Product Safety Improvement Act)
  - ▶ Section 101, Lead Content in Substrates (<300 ppm lead); 16 CFR, Part 1303, Lead in Paint (<90 ppm lead)
  - ▶ Section 108, Phthalates (<.1% DEHP, DBP, BBP, DINP, DIDP, DNOP).
- ▶ Eco-Passport Certified.

### Mixing Ratios

- ▶ 15% - 20% load recommended
- ▶ Some inks may require excess of 20% to achieve effective flame retardancy. Only the individual can determine the correct proportions necessary to achieve the desired flame retardant properties.
- ▶ Achieving effective flame retardancy also requires the uniform distribution of QEC FR Concentrate throughout the ink.
- ▶ Ineffective or insufficient mixing/dispersion techniques can, and likely will, result in ineffective or inconsistent flame retardancy properties in the finished ink formulation.

### Curing

- ▶ In general, after application, inks containing QEC FR Concentrate must undergo fusion to a temperature of not less than 320F (160C) throughout the ink film to activate flame retardant properties (see PIB for ink base to confirm cure temperature recommendations.)
- ▶ Failure to achieve proper cure throughout the ink film can, and likely will, result in portions of the film that will not provide the desired flame retardant properties.
- ▶ Use caution not to heat the ink film to a temperature at which decomposition occurs. Consult technical materials for each ink to determine that point of decomposition.
- ▶ Failure to cure ink properly causes poor wash fastness, inferior adhesion, unacceptable durability and increased chance for dye migration.

### Precautions

- ▶ Flame retardant properties DO NOT equate to non-flammable characteristics. Flame retardant materials simply burn more reluctantly than the same material without flame retardant properties. Materials with insufficient flame retardant properties can burn more rapidly and cause greater burn damage/injury than those with proper flame retardant properties. Various factors influence the flame retardant properties of properly fused ink films, including the oxygen content of the atmosphere adjacent to the fused ink film, the substrate printed, dyes or colorants used in the substrate, etc.
- ▶ Only actual burn testing can determine whether a mixture of a particular ink and QEC FR Concentrate possess the necessary flame retardant properties in a particular application. Users of QEC FR Concentrate should always conduct burn tests to confirm that the mixtures will possess flame retardant properties on final print product.
- ▶ Wilflex does not recommend use with third party inks. Actual burn testing must be completed to confirm effectiveness in imparting flame retardant properties when using third party inks.
- ▶ Any application not referred in this product bulletin should be pre-tested or consultation sought with Technical Services Department prior to printing.
- ▶ Email: techserviceswilflex@polyone.com

## Printing Parameters

**Opacity** n/a  
**Bleed Resistance** n/a  
**Smooth Surface** n/a  
**Flash** n/a  
**Gloss** n/a  
**Printability** n/a



**Fabric Types**  
See PIB of ink base.



**Mesh**  
See PIB of ink base.



**Squeegee**  
See PIB of ink base.



**Stencil** (*non-phthalate*)  
See PIB of ink base.



**Gel/Cure Temperatures**  
See PIB of ink base.



**Epic Pigment Loading**  
See PIB of ink base.



**Additives**  
See PIB of ink base. If modifiers are used, be sure to perform burn tests as the properties of the ink may be altered.



**Storage**  
65°-90°F (18°-32°C)  
Avoid direct sun.  
Use within one year of receipt.



**Clean Up**  
Wilflex screen wash



**Health & Safety**  
MSDS: [www.polyone.com](http://www.polyone.com)