



TECHNICAL DATA SHEET

TOPS FRS-600

PRODUCT DESCRIPTION

TOPS FRS-600 is a water soluble flame retardant organic cyclic phosphonate non halogen additive designed for various synthetic as well as cellulosic fabrics to prevent fire spreading and smouldering.

TYPICAL PROPERTIES

Appearance	:	Clear or clear yellowish liquid
Active	:	30 ± 1%
pH value (10%)	:	6.0 - 7.0
Specific Gravity	:	1.16 - 1.36
Solubility	:	Miscible with any ratio water

PROPERTIES AND FEATURES

It can be used in the treatment of polyester fabrics, non-woven to give a durable finish.

1. 95 - 100% of the FR present on the finished fabric after the process rinse is retained after 50 home launderings at 60°C.

FR retention exceeds 90% after 10 dry cleaning cycle following an initial process rinse.

2. It doesn't cause yellowing for the finished white textile commonly.
3. Because it is halogen-free, there is no harmful gas when it burning.
4. Because it has no antimony and formaldehyde, it is a healthy agent.
5. Good hand and drapability of treated fabrics.
6. There is no adverse to light resistant.

SUITABLE SCOPE

This flame retardant can be applied for the flame retardant finishing of fabrics, furnishings and automotive, toy, industry.

Padding Process

Typical Dosage: TOPS FRS-600 dosage 60 - 200 g/l

1. Dissolve sufficient TOPS FRS-600 in water and the aqueous solutions should be buffered to about 6-6.5. A 10% solution can be buffered with either disodium orthophosphate or 0.3-0.35 g/l sodium carbonate. Add 1-3 g/l wetting agent if required.
2. Pad to 40-70% wet pick up and then drying 100-130°C for 1-2 min.
Baking 170-190°C for 0.5-1.5 minutes.
3. Rinse throughly with cold water to remove any surface chemical which might affect fabric handle and finally dry.

Fabric type, weave, weight and flame retardancy determine the dosage.

Determined by performance.



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Coating Process

Typical Dosage : TOPS FRS-600 dosage 1-10% (slurry weight)

Ingredients	Percentage
Binder	45 - 50%
TOPS FRS-600	8 - 16%
TOPS FR-200	18 - 25%
Thickener	1.0 - 3.0%
Water	balance

PACKAGE AND STORAGE

120 kg PE drum.

Keep in cool and dry place.

The above information is provided base on our present knowledge and experties and intended to serve as a general guidance on our product and it use, it is provided without any guarantee, users are advised to conduct trial under their our conditions.