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## TUBIFAST AS 4010 FF

### Characterization

Formaldehyde free\*, self-crosslinking emulsion polymer

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### Chemical Structure

Copolymer based on styrene and acrylic acid ester

### Supplied Form

White liquid

### pH Value

7.2 – 8.8

### Ionic character

Anionic

### Specific Weight at 20 °C

Approx. 1.05

### Viscosity

< 500 mPas (Brookfield RV, spindle: 2, 20 rpm)

### Stability/Compatibility

TUBIFAST AS 4010 FF is very well compatible with the auxiliaries usually applied in pigment printing. Product has an outstanding stability against electrolytes.

The product is very sensitive to frost; irreversible changes occur after the impact of temperatures around the freezing point.

It is sensitive to temperatures higher than 40 °C.

### Storage

In a cool and dry place in well-closed original containers but not below + 5°C and above 35°C. Opened containers must be closed again well, as the product tends to form a skin. The product must be protected from frost. We recommend not exceeding a storage time of 24 months.

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## Properties

### Film properties

After curing TUBIFAST AS 4010 FF produces a dry film which is soft and glossy. TUBIFAST AS 4010 FF does not cloud the dyestuff pigments but makes them appear clear and brilliant.

### Function

Due to its formaldehyde free property, TUBIFAST AS 4010 FF can be used where high ecological demands have to be fulfilled. Product has excellent application properties. TUBIFAST AS 4010 FF is highly suitable as a binder for pigment printing systems when an outstanding soft handle is required. Due to the high mechanical and chemical stability, the binder dispersion exhibits good redispersability and running properties during the printing process. Prints with TUBIFAST AS 4010 FF produce excellent fastness to washing, rubbing and dry cleaning because of the pronounced binding characteristics of the polymer.

## Application

### Textile Substrates

TUBIFAST AS 4010 FF can be applied on all kinds of textile materials commonly used in textile printing. For improving the fastness level we recommend to add 5.0 - 10.0 g/kg formaldehyde free fixing agent (e.g. TUBIFIX P 70).

### Curing conditions

To obtain maximum fastness, it is suggested to cure at 150°C for 4 - 5 minutes. Depending on the machine type, it can be cured at 180 - 140°C for 2 - 6 minutes.

At higher temperatures, the cross-linking rate increases.

### Storage of Ready for Use Print Pastes

Should ready for use print pastes be stored for a prolonged period, it is advisable to cover them with a plastic film. In addition, the pH value of the print pastes should be adjusted to at least 7.5 - 8.0 by adding ammonia. Straining the print pastes before printing is recommended in any case.

\* To us formaldehyde-free means that all recipe components neither contain nor release formaldehyde during production or processing.

**We reserve the right to modify the product and technical leaflet.**

**Our department for applied technique is always at your service for further information and advice.**

Our technical advice and recommendations given verbally, in writing or by trials are believed to be correct. They are neither binding with regard to possible rights of third parties nor do they exempt you from your task of examining the suitability of our products for the intended use. We cannot accept any responsibility for application and processing methods which are beyond our control.

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