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## TUBINGAL CFO

<b>Character</b>	Special hydrophilic softener for all types of fibres
<b>Chemical character</b>	Fatty acid condensation product
<b>Appearance</b>	Clear, Yellow liquid
<b>Ionic character</b>	Non-ionic / pseudo-cationic
<b>pH-value</b>	4.0 – 6.0
<b>Specific weight at 20 °C</b>	Approx. 1.0
<b>Stabilities</b>	<p>TUBINGAL CFO is stable to hard water, acids, alkalis and electrolytes in the usual industrial concentrations. The product can be combined with non-ionic an cationic substances.</p> <p>TUBINGAL CFO is sensitive to frost; after having been exposed to temperatures essentially below the freezing point, irreversible changes result.</p>
<b>Storage</b>	The product will hold for at least 12 months if stored properly.

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### Properties

TUBINGAL CFO is a universal hydrophilic softener for all types of fibres. It can be used on all fabrics that require hydrophilicity, especially terry fabrics. Due to its low-foaming character and resistance towards shearing forces, the product can be used in jet dyeing machines.

TUBINGAL CFO has the following advantages:

- soft, voluminous and slippery handle
- hydrophilic properties in finished fabrics
- improved sewability
- suitable for exhaust and paddinf method
- applicable in resin finishing baths
- TUBINGAL CFO can be applied for white goods; preliminary trials are recommended because there is the risk of a loss of whiteness.

## Application technique

### Diluting instruction

TUBINGAL CFO can be diluted with cold or warm water in any ratio. It is a very easy to use liquid softener.

### Fields of application

Unlike other softeners on the market, TUBINGAL CFO ensures a soft handle by preserving the hydrophilicity of cellulosic products.

TUBINGAL CFO can also be used easily in the padding method and exhaust method. Since its affinity for the fabric is low, the pH value should be between 5.0 - 5.5 in applications made according to the exhaust method.

The application amounts depend on the effect of handle desired and usually they are as follows :

#### Exhaust method (jet, winch beck, rotary dyeing machine) :

1.0 – 4.0 %	TUBINGAL CFO
Liquor ratio	1:6 – 1:15
pH	5.0 – 5.5
	20 min. at 40 °C

#### Padding:

10.0 – 40.0 g/l	TUBINGAL CFO
Pick-up	% 60 – 80
pH	5.0 – 5.5
Drying	120 - 150 °C

#### Application in resin finishing liquors :

50.0 – 60.0 g/l	REAKNITT TW
10.0 – 20.0 g/l	TUBINGAL SHE
20.0 g/l	POLYAVIN PEN A
20.0 – 40.0 g/l	TUBINGAL CFO
Pick-up	60 - 80 %
Drying	120°C
condensate	30 – 60 second at 160 - 170 °C

**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.

Edition: March 2024.

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