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## DENIMCOL EMG

<b>Character</b>	Very acid sequestering agent with a high pH-buffer capacity
<b>Chemical character</b>	Synergetic mixture of different phosphonates
<b>Appearance</b>	Yellow-brown liquid
<b>Ionic character</b>	Anionic
<b>pH-value of a 10 % solution</b>	1.5
<b>Stabilities</b>	<p>DENIMCOL EMG is stable to acids, alkalis, reducing and oxidation agents in the usual industrial concentrations.</p> <p>The product is to a certain extent sensitive to frost; changes occurring at low temperatures are reversible on warming and after thorough stirring.</p>
<b>Storage</b>	On proper storage in closed original containers, the product is stable for at least 2 years.

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## Properties

DENIMCOL EMG has an excellent sequestering capacity in the presence of alkaline earth and heavy metal ions.

The product is appropriate for the application in acid demineralization processes and as sequestering agent in acid dyeing processes.

Like all chelate forming agents DENIMCOL EMG, too, can withdraw the metal ion of the dyestuff. If the product shall be used for dyeing processes the stability of the dyestuffs should be tested by means of preliminary trials.

DENIMCOL EMG is not steam-volatile like formic-, acetic- and hydrochloric acid and therefore does not have an unpleasant smell. In the acid pH-range the product has a very strong pH-buffer capacity.

The advantages compared to usual acids:

- no corrosive effect on stainless steel in the finishing machines and no corrosion at factory halls and conduit pipes by steaming as with hydrochloric acid,
- no formation of insoluble calcium sulphate or oxalate, as with sulphuric or oxalic acid,
- after neutralization with caustic soda the property as sequestering agent will also be preserved in the alkaline medium, therefore also suitable for one-bath, two-bath procedure demineralization - peroxide bleach.

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## Application technique

### Diluting instructions

DENIMCOL EMG can be mixed with cold water in every ratio. When diluting the product observe the same safety measures as when handling mineral acids.

### Application fields

- Demineralization of alkaline earth and heavy metal containing native and synthetic textiles.
- Neutralization and extraction on continuous and discontinuous washing processes

### Recipe proposals

#### 1. Continuous method

Neutralization and extraction on continuous washing processes

0.5 - 1.0 g/l DENIMCOL EMG  
Dosing in counter flow

#### 2. Discontinuous method

Demineralization

1.0 - 3.0 g/l DENIMCOL EMG  
1.0 - 3.0 g/l FELOSAN JET  
  
Liquor ratio: 1 : 10  
Treatment temperature: 40 - 60 °C  
Treatment time: 10 - 30 min.

Neutralization and extraction in the rinsing process after a peroxide bleach

0.5 - 2.0 g/l DENIMCOL EMG  
  
Liquor ratio: 1 : 10  
Treatment temperature: 60 - 90 °C  
Treatment time: 10 - 15 min  
Drain, rinse

One bath, two-step procedure demineralization - peroxide bleach

Liquor ratio 1 : 10

Demineralization

1.0 - 2.0 g/l DENIMCOL EMG  
1.0 - 2.0 g/l FELOSAN JET  
  
Treatment temperature: 40 - 60 °C  
Treatment time: 10 - 30 min

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Addition of:                   2.0 - 3.0 g/l NaOH 100 %  
                                      2.0 - 7.0 g/l H<sub>2</sub>O<sub>2</sub> 50 %

Heat up to 98 °C  
Treatment temperature: 98 °C  
Treatment time:               30 - 40 min

**Please note:**

DENIMCOL EMG is strongly acid (pH-value 0). For working with this product we recommend rubber gloves and a pair of protective goggles. Splashes on the skin should be rinsed with a lot of water.

For storage of this concentrated product in tanks, we recommend to use suitable synthetic material such as PE, GFK or PVC.

DENIMCOL EMG cannot be used in the last rinsing compartment before the drying aggregate as its done with acetic acid.

The product is not steam-volatile, concentrates when being dried and can cause fibre damages.

**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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