



# MIRACHEM INDUSTRIES

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TECHNICAL LITERATURE

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## EMCOZYME – 73

**Emcozyme – 73** is an  $\alpha$  Amylase





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## EMCOZYME – 73

**Emcozyme – 73** is an  $\alpha$  Amylase, produced by submerged fermentation of a genetically modified *Bacillus* micro – organism. The enzyme protein, which is protein engineered is separated and purified from the production organism.

### Salient Features:

- It is used for Desizing fabrics and garments at wide range of pH i.e. 5.0 – 10.0 and temperature 20<sup>0</sup> C – 85<sup>0</sup> C
- It hydrolyses starch in textile size into soluble dextrans without damaging the textile fibres.

### Properties:

Appearance	: Pale yellow liquid
Odour	: Slight ferment action odour
Chemical Nature	: $\alpha$ Amylase
Solubility	: Soluble in cold water
pH ( 2% Solution )	: 7.0 – 8.0
Stability	: Resist to Hard Water



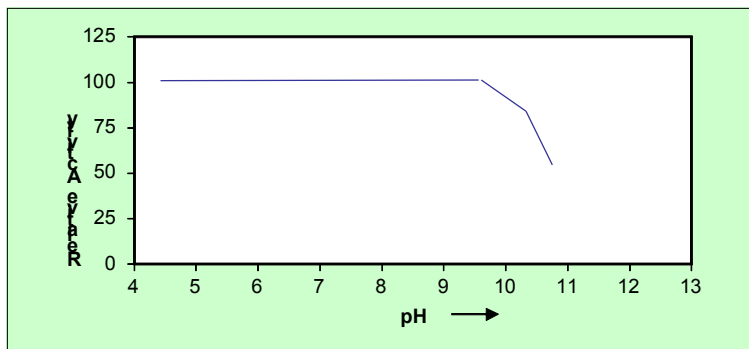


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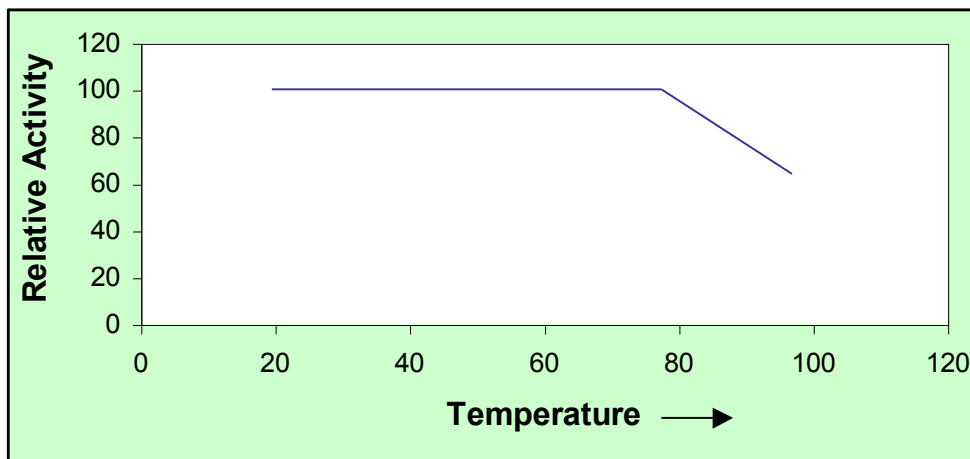
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### Enzyme Property:

#### Influence of pH on the stability of Emcozyme – 73



#### Influence of Temperature on the Stability of Emcozyme – 73





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### Method of Application:

#### 1. PAD – BATCH / PAD – ROLL:

<b>Emcozyme – 73</b>	→	4.0 – 5.0 gpl
<b>Instawet – NA</b>	→	2.0 – 4.0 gpl
pH	→	6.5 – 7.5
Temperature	→	60 – 70 <sup>0</sup> C
Expression	→	70 – 80 %
Time	→	2.0 – 3.0 hours

#### 2. EXHAUST:

<b>Emcozyme – 73</b>	→	0.5 – 0.6% (o.w.f)
<b>Instawet – NA</b>	→	1.5 – 2.5 gpl
pH	→	6.5 – 7.5
Temperature	→	60 – 70 <sup>0</sup> C
Duration	→	60 minutes





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### 3. FOR PADDING (Combined desizing and Bioscouring):

Emcozyme Process Recommendations:

#### Padding Conditions



Process	Voile	Twill	Poplin
PH	8.0 – 8.5	8.0 – 8.5	8.0 – 8.5
Temperature	50 – 60° C	50 – 60° C	50 – 60° C
Residence Time ( hrs )	4	4	4
Pick up %	60 – 70	75 – 80	75 – 80

#### Padding Liquor Preparation



Particulars	Voile	Twill	Poplin
Instawet – NA	4.5 gpl	4.0 gpl	4.0 gpl
Emcozyme – 73	-	6.0 gpl	6.0 gpl
EMCOZYME SCOUR – L	8.5 gpl	7.5 gpl	7.5 gpl

#### Washing



Particulars	Voile	Twill	Poplin
Temperature	90° C +	90° C +	90° C +
Wash Boxes	4	5	5





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### Pls. Note :-

- Any turbidity has no influence on the activity of the product
- Colour can vary from batch to batch. Colour intensity is not an indication of enzyme activity

### Storage:

Best Before : When stored as recommended, the product is best used within 3 months from the date of delivery.

Storage Temperature : 0 – 25<sup>0</sup> C (32<sup>0</sup> F – 77<sup>0</sup> F)

Storage Conditions : In unbroken packaging – dry and protected from the sun. The product has been formulated for optimal stability. Extended storage or adverse conditions such as higher temperature or higher humidity may lead to a higher dosage requirement.

### General safety instructions:

General safety rules for handling chemicals should be observed in storage, handling and use. The product should not be swallowed. For further information, please consult existing safety data sheet.





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### Note :

The data contained in this communication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. Responsibility for compliance with the requirements of the downstream textile market rests with the textile processor.

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### Contact Information:

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