



# ROHALASE<sup>®</sup> ROHAMENT<sup>®</sup>

Enzymes for Grains and Oil Seeds

Grain Processing - Vegetable Oil Processing - Brewing - Distilling



## Increase your Performance with ROHALASE® and ROHAMENT®

### Grain Processing

Improve your key separation and filtration processes with AB Enzymes' range of grain processing enzymes.

ENZYME PRODUCT	FEATURES	BENEFITS
<b>ROHALASE® SEP</b>	Liquid formulated blend of concentrated fungal <b>xylanase</b> enzyme and <b>beta-glucanase</b> enzyme for hydrolysing non-starch polysaccharides in wet-milled wheat and corn. Best product choice for viscosity reduction and separation depending on substrate and process conditions.	Reduction of viscosity in starch-gluten separation processes: <ul style="list-style-type: none"> <li>✓ Optimizing yields and purity of starch and gluten. Increase A-starch fraction</li> <li>✓ Reducing fresh water consumption</li> <li>✓ Reducing energy consumption</li> </ul>
<b>ROHALASE® SEP-VISCO</b>	Liquid formulated concentrated bacterial <b>xylanase</b> enzyme for hydrolysing non-starch polysaccharides in wet-milled wheat and corn. Best product choice for viscosity reduction and separation depending on substrate and process conditions.	Reduction of viscosity in starch-gluten separation processes: <ul style="list-style-type: none"> <li>✓ Optimizing yields and purity of starch and gluten. Increase A-starch fraction</li> <li>✓ Reducing fresh water consumption</li> <li>✓ Reducing energy consumption</li> </ul>
<b>ROHALASE® F</b>	Liquid formulated fungal <b>lyso-phospholipase</b> enzyme for degrading of lyso-phospholipids in hydrolysed starch syrups.	Reduction of the emulsifying properties of lyso-phospholipids: <ul style="list-style-type: none"> <li>✓ Improving filtration and final product clarity</li> </ul>

### Vegetable Oil Processing

Improve the oil yield of your degumming process with AB Enzymes' unique low-pH phospholipase enzyme.

ENZYME PRODUCT	FEATURES	BENEFITS
<b>ROHALASE® PL-XTRA</b>	Liquid formulated fungal <b>phospholipase-A2</b> enzyme for hydrolysis of phospholipids to lyso-phospholipids - at low pH - in vegetable oils from soy, rape/canola, sunflower, corn, rice bran, cotton seed, mustard seed and groundnut.	<ul style="list-style-type: none"> <li>✓ Optimizing oil yields in the degumming of vegetable oils</li> <li>✓ Reducing final phosphorus levels</li> <li>✓ Minimizing fouling and scaling of equipment</li> <li>✓ Modification of lecithin</li> </ul>



# WITH ROHALASE® AND ROHAMENT® WE GIVE YOU 'THE ART OF ENZYMES'

## Brewing

Address your process optimization needs with AB Enzymes' range of brewing enzymes.

ENZYME PRODUCT	FEATURES	BENEFITS
<b>ROHALASE® BARLEY L</b>	Liquid formulated fungal <b>beta-glucanase</b> enzyme for hydrolysing non-starch polysaccharides.	Optimization of brew house efficiency:
<b>ROHALASE® BXL</b>	Liquid formulated fungal <b>beta-glucanase</b> enzyme with useful secondary-activities for hydrolysing non-starch polysaccharides.	✓ Complete breakdown of beta-glucans
<b>ROHAMENT® CL</b>	Liquid formulated fungal <b>cellulase</b> enzyme for hydrolysing non-starch polysaccharides.	✓ Reduction of wort viscosity
<b>ROHAMENT® CEP</b>	Dry formulated fungal <b>cellulase</b> enzyme for hydrolysing non-starch polysaccharides.	✓ Increases wort separation rate
<b>ROHALASE® SEP</b>	Liquid formulated fungal <b>xylanase</b> and <b>beta-glucanase</b> enzyme for hydrolysing non-starch polysaccharides.	✓ Improves efficiency of beer filtration
		✓ Reduces risk of beer haze

## Distilling

Address your process optimization needs with AB Enzymes' range of distilling enzymes.

ENZYME PRODUCT	FEATURES	BENEFITS
<b>ROHALASE® BARLEY L</b>	Liquid formulated fungal <b>beta-glucanase</b> enzyme for hydrolysing non-starch polysaccharides.	Optimization of the mashing process by grain-type (barley, wheat, rye, oats, corn), allowing:
<b>ROHALASE® BXL</b>	Liquid formulated fungal <b>beta-glucanase</b> enzyme with useful secondary-activities for hydrolysing non-starch polysaccharides.	✓ Viscosity reduction in slurry and liquefaction
<b>ROHALASE® SEP-VISCO</b>	Liquid formulated concentrated bacterial <b>xylanase</b> enzyme for hydrolysing non-starch polysaccharides.	✓ Optimizing flow-rate (pumpability) and separation
<b>ROHAMENT® CL</b>	Liquid formulated fungal <b>cellulase</b> enzyme for hydrolysing non-starch polysaccharides.	✓ Reduced water & energy consumption
<b>ROHAMENT® CEP</b>	Dry formulated fungal <b>cellulase</b> enzyme for hydrolysing non-starch polysaccharides.	✓ Increased fermentable sugars and alcohol yield
<b>ROHALASE® SEP</b>	Liquid formulated fungal <b>xylanase</b> and <b>beta-glucanase</b> enzyme for hydrolysing non-starch polysaccharides.	✓ Increased protein content in DDGS

Depending on grain types, best matching enzyme products are advised:

GRAIN TYPE	BETA-GLUCAN	ARABINOXYLAN	ADVISED ENZYME PRODUCT
BARLEY	++	++	<b>ROHALASE® BARLEY L</b> , <b>ROHALASE® BXL</b>
WHEAT	-	++	<b>ROHALASE® SEP-VISCO</b> , <b>ROHALASE® SEP</b>
RYE	-	++	<b>ROHALASE® SEP-VISCO</b> , <b>ROHALASE® SEP</b>
OATS	++	-	<b>ROHALASE® BARLEY L</b> , <b>ROHALASE® BXL</b>
CORN	+/-	+	<b>ROHALASE® SEP</b>

(++, +, +/-, - indicate relative amount of beta-glucan and arabinoxylan content by grain type)

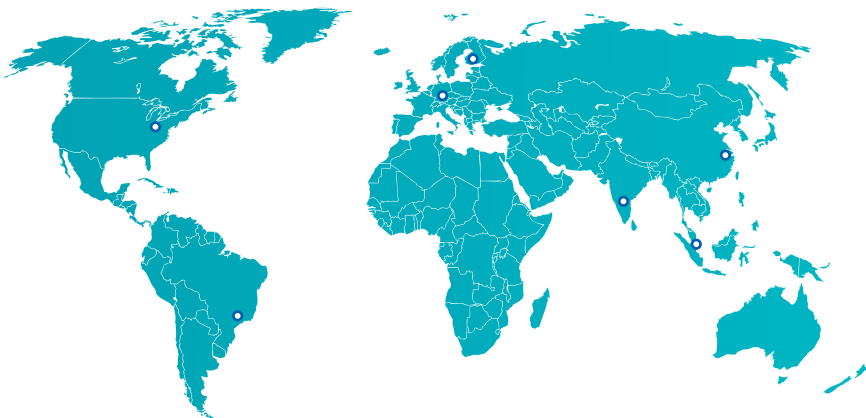
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