



 VIKING MALT

# DISCOVERING THE WORLD OF MALT

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CRAFT PORTFOLIO 2018



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## DISCOVERING THE WORLD OF MALT



Dear Friends,

malt is an ancient innovation and it has been enjoyed in many forms over centuries. You can find malt in beers, whiskies and breads.

Despite its old age we still don't know everything about it. There are many things in the properties of barley varieties and in malting process that surprises us crop after crop. There is always room for the new things to study and understand. One particular area of interest are the healthy compounds of the sprouted grains (=malt). Malt has been found to improve the nutritional value of the grains in many ways. Antioxidants, vitamins and many other vital compounds are enriched in grains after malting process.

Ideal situation for many new applications and improvements in any beverage and food application.

We have defined our slogan according to the fact that we do not know enough yet. We need to be curious and humble every single day in our work. From the raw materials to the new flavor nuances of the malts we need to know more. We believe that when you constantly look for new things you will also gain the most. Only by discovering and creating new information we can give real added value our customers and other stakeholders.

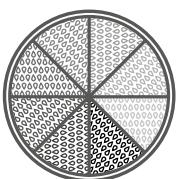
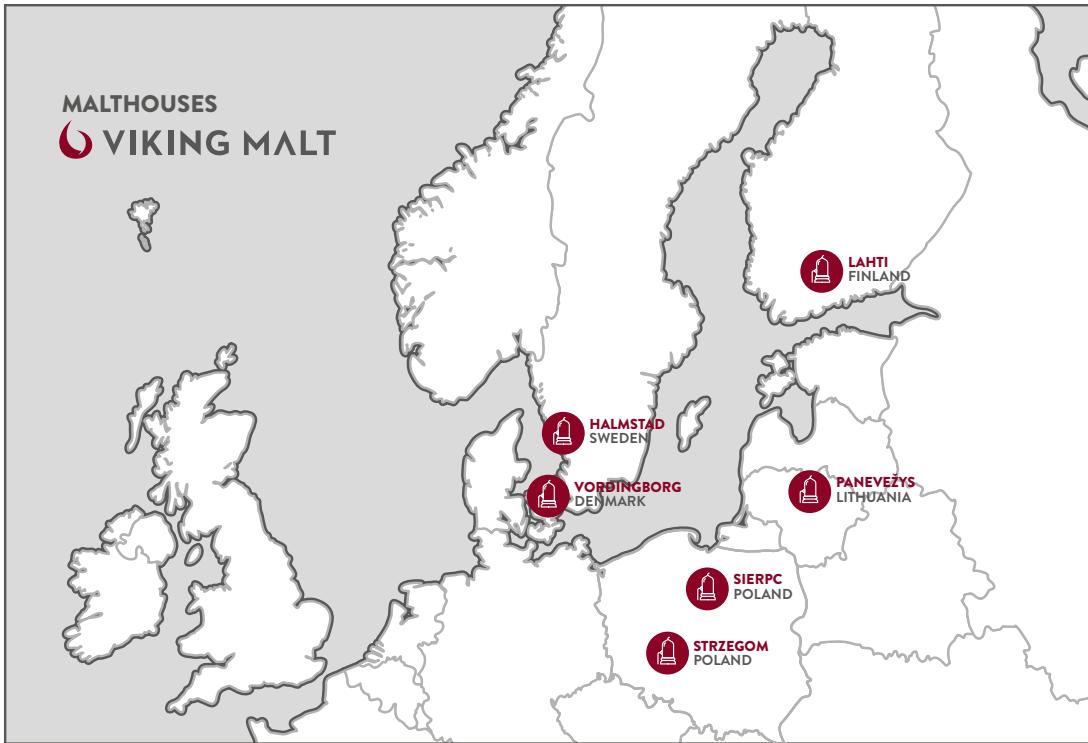
I welcome you all to discover the world of malts with us!

Malty regards,

A handwritten signature in black ink, appearing to read "Timo Huttunen".

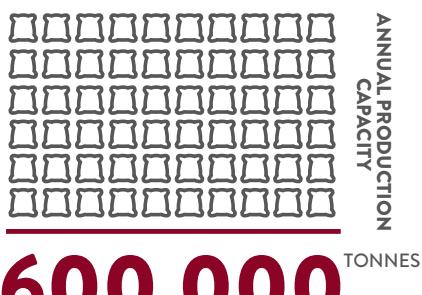
Timo Huttunen

(This is our latest product portfolio for craft brewers and distillers all over the world. Hopefully you will find the right malts you were looking for).



**65**  
DIFFERENT  
MALT QUALITIES

**6**



**600 000**

**1**  
NO.  
IN THE WORLD  
ROASTED MALT  
WORLDWIDE LEADER

THOUSAND TONNES

**40**  
OF ROASTED  
MALTS/YEAR



**250**  
PROFESSIONALS



DISTRIBUTION TO  
**65**  
COUNTRIES

# DISCOVER THE WORLD OF MALT WITH US!

Viking Malt is a leading malting company offering a wide range of malts for the production of beer both to small and large breweries as well as whisky producers.

We have 130 years of malting experience and the knowledge we have acquired combined with our employees' passion have given us the roasted malt worldwide leading position.

At Viking Malt we know that

## MALT IS THE FOUNDATION OF BEER

It is our goal and ambition to meet the expectations of our Clients and provide them with the widest range of top quality malts.

We want to actively participate in the development of the brewing market and beer culture wherever we, as Viking Malt, are present.



The world of malts, just like the world of beer, abounds in fascinating people who draw inspiration from brewers and create new products for them.

They work with passion, energy and utmost involvement. They create new quality and initiate new trends, they are inspired by brewing tradition as well as latest innovations and technology.

That is why our motto:

**DISCOVERING THE WORLD OF MALT**,  
means a fascinating journey in which our Clients accompany us.

We focus on:

**QUALITY  
COOPERATION  
LOCALITY**

To a great extent, beer quality depends on the malt itself.

That is why we acquire barley from farmers who have been our reliable Partners for years. We are familiar with each grain and we know exactly when, where and how it was grown.

Every day, we create unique malts for unique beers.

Welcome to our world of malt!



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**WE ARE THE  
WORLDWIDE LEADER  
OF ROASTED MALTS  
MARKET**

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# OUR GRAINS

WE BUY  
ONLY CONTRACT  
GROWN MALTING  
BARLEY



## KEY POINTS

- 🌾 The raw materials of our malts grow in the northern-most farming areas of the world where the circumstances for barley cultivation are optimal
- 🌾 We buy only contract grown malting barley
- 🌾 The farms are audited that enables easy communication with farmers about the quality and practices
- 🌾 We actively develop and test new varieties together with breeders, farmers and customers
- 🌾 Clean environment and good climate with proper seasons lead to low contamination levels and safe raw material
- 🌾 Our traceability is easy when grains are transported directly from the farms to the maltings
- 🌾 We create added value by using varieties and qualities that are preferred by the customers

## VARIETIES

MALT TYPE	FINLAND	POLAND
Pilsner and Pale Ale	Barke, Tipple	Explorer, Propino, Planet
Zero* Malts	Charmay, Charles	Charles
Special Malts	Tipple, Harbinger	Malwinta, Propino, Explorer
Enzyme Malts	Polartop, Pekka	-

\*Zero malts are produced from the so called null-LOX varieties. Those varieties are missing the certain enzyme called Lipoxygenase. This enzyme is needed in enzymatic oxidation of beer that mainly cause the papery flavor during aging. By using the Zero malts the self-life of beer can be improved and fresh taste lasts longer.





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# BREWER'S CLASSIC

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Our Classic malts are recommended for use as a base for a chosen beer type. In combination with our Special selection, any type of beer can be designed. These malts can be also used together with the right proportion of different adjuncts. Our Classic malts are high in enzymic power and pale in colour. Flavors are dominated by malty, nutty and green notes.



BREWER'S CLASSIC

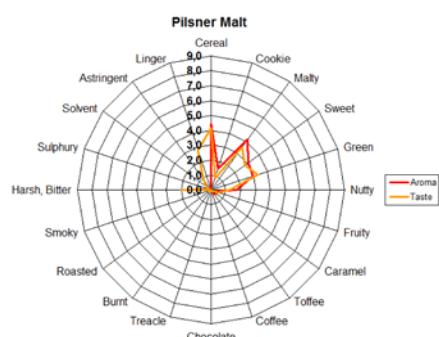
# Viking Pilsner Malt



## MALT CHARACTER

Pilsner Malt is made from 2-row spring barley. Steeping and germination conditions are chosen to promote even germination and homogenous modification. The final air-on temperature in kilning is typically 80–85°C. Pilsner malt flavor is usually described as malty, slightly nutty and sweet. Great malt for all malt beers but there is enough activity and character for base malt use in many brewing applications.

## FLAVOUR CONTRIBUTION



## APPLICATIONS

For all kind of beers or whiskies. The color of the Pilsner Malt is low.

## MALT SPECIFICATION

moisture	%	max. 5.0
extract fine	% dm	min. 80.0
color	°EBC	3.0–4.5
protein	% dm	max. 11.5
sol. nitrogen	mg/100 g	600–750
free amino nitrogen	mg/l	130–170
beta-glucan	mg/l	max. 200
friability	%	min. 80
diastatic power	WK dm	min. 250

## PRODUCTION AND PACKAGING

Pilsner Malt is produced in Finland and Poland.

Available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*Pilsner malt is widely used as standard name to high quality malts that can be used for brewing any beer. Other names can be: lager malt, basic malt or pale malt.*



BREWER'S CLASSIC

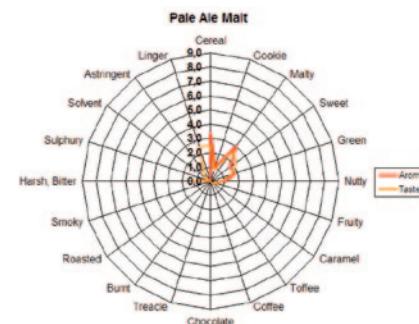
# Viking Pale Ale Malt



## MALT CHARACTER

Pale Ale Malt is made from 2-row spring barley. High degree of modification promotes easy processing. Flavor contributes specially to malty, sweet and nutty notes. It is ideal malt for ales and special lagers. The coloring power of Pale Ale Malt is not too strong, which makes it also suitable for subtle color correction of regular lagers.

## FLAVOR CONTRIBUTION



## APPLICATIONS

For all kind of beers or whiskies. The color of the Pale Ale Malt is rather low. Usage rate up to 100%.

## MALT SPECIFICATION

moisture	%	max. 5.0
extract fine	% dm	min. 80.0
color	°EBC	4–7
protein	% dm	max. 11.5
Kolbach index	%	min. 43
free amino nitrogen	mg/l	min. 130
beta-glucan	mg/l	max. 200

## PRODUCTION AND PACKAGING

Pale Ale Malt is produced in Finland and Poland.

Available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odourless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*Our Ale malts are thoroughly modified to support the traditional Ale brewing process, where single temperature mashing is typically applied.*

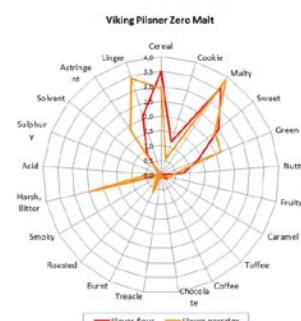


## BREWER'S CLASSIC

# Viking Pilsner Zero Malt

**MALT CHARACTER**

Viking Pilsner Zero Malt is made from 2-row null-LOX spring barley. As a special feature in null-LOX varieties is that Lipoxygenase activity is zero, affecting positively on flavor stability of beer. Steeping and germination conditions are chosen to promote even germination and homogenous modification. The final air-on temperature in kilning is typically 80–85°C. Pilsner malt flavor is very close to traditional pilsner malt and usually described as malty, slightly nutty and sweet. Great malt for all malt beers but there is enough activity and character for base malt use in many brewing applications.

**FLAVOR CONTRIBUTION****APPLICATIONS**

For all kind of beers. Dosage rate up to 100%.

**MALT SPECIFICATION**

moisture	%	max. 5.0
extract fine	% dm	. min. 80.0
color	°EBC	3.0–4.5
protein	% dm	max. 11.5
sol. nitrogen	mg/100g	max. 750
free amino nitrogen	mg/l	130–180
beta-glucan	mg/l	max. 200
friability	%	min. 80
diastatic power	WK dm	min. 250

**PRODUCTION AND PACKAGING**

Pilsner Zero Malt is produced in Poland.

Available in bulk, containers, big bags and 25 kg pp bags.

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

**GENERAL REMARKS**

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*Pilsner malt is widely used as standard name to high quality malts that can be used for brewing any beer. Other names can be Lager malt, Base malt or Pale malt. Viking Pilsner Zero Malt is also part of this family.*



BREWER'S CLASSIC

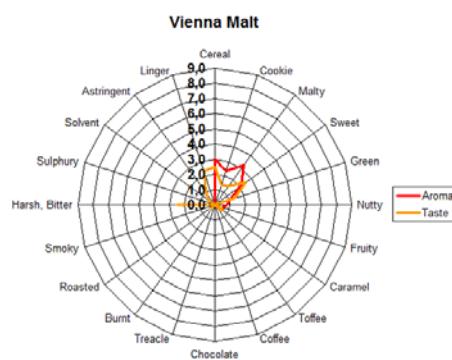
# Viking Vienna Malt



## MALT CHARACTER

Vienna Malt is cured at slightly higher temperatures than pilsner malt. Consequently Vienna Malt gives a golden colored beer and increases body and fullness. Due to the higher curing temperature, the enzyme activity of Vienna Malt is slightly lower than that of pilsner malt. Flavor of Vienna Malt is subtle, including maltiness, some sweetness and hints of caramel aromas. Slightly nutty sensations can also be found.

## FLAVOR CONTRIBUTION



## APPLICATIONS

Vienna Malt is well suited for relatively pale colored beers. Typical application is to enhance color and aroma of light beers. Vienna also has its own beer type, Vienna lager, which is famous for its deep golden color and malty taste.

## MALT SPECIFICATION

moisture	%	max. 5.0
extract fine	% dm	min. 79.0
color	°EBC	7–10
free amino nitrogen	mg/l	min. 130
saccharification	min.	max. 15

### Other typical analysis values

friability	%	min. 80
protein	% d.m.	max. 11.5

## PRODUCTION AND PACKAGING

Vienna Malt is produced in Finland and Poland.

As a standard malt is available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

*Vienna type beers are typically served from big beer glasses of one liter. Due to a bit higher alcohol content of those beers and good drinkability of that style this may lead to "bierkopf" phenomena next morning. Be careful!*



BREWER'S CLASSIC

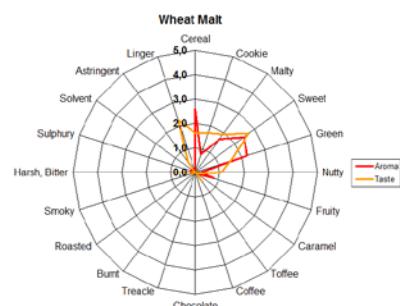
# Viking Wheat Malt



## MALT CHARACTER

Wheat Malt is made from high quality wheat. Varieties suitable for the brewing purposes are used. The malting process does not differ much from pilsner malt production. Final air-on temperature is normally 72–80°C.

## FLAVOUR CONTRIBUTION



## APPLICATIONS

Wheat Malt is used mainly for wheat beers and some other top fermented beers. Wheat Malt is also used for lager beers for flavor enrichment and to improve foam stability. Typical rate of usage is around 50% of the grist for wheat beers and appr. 20% for the premium lagers.

## MALT SPECIFICATION

moisture	%	max. 6.0
extract fine	% dm	min. 82.0
color	°EBC	3.5–6.5
pH		5.7–6.3
protein	% dm	max. 13.0
sol. nitrogen	mg/100 g	max. 800
free amino nitrogen	mg/l	90–150
viscosity *	mPas	max. 2.0
diastatic power	WK dm	min. 250

\* (measured at 8.6 %)

## PRODUCTION AND PACKAGING

Wheat Malt is produced in Finland and Poland.

Available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*Wheat malt, as opposed to barley malts, has no husk, which usually makes the filtration of wheat beers more difficult. Wheat also has a higher protein content than barley, which actually positively impacts the beer's head retention.*

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# BREWER'S SPECIAL

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Brewer's Special malts offer brewmasters a full selection of malts for designing Pils, IPA or any other brew. Typically these malts are low or nil in enzymic power. The usage rate of any specific malt depends mainly on that feature. Flavors are varied - from the cereal notes of the Munich malt, to the coffee aromas of our Chocolate malt.



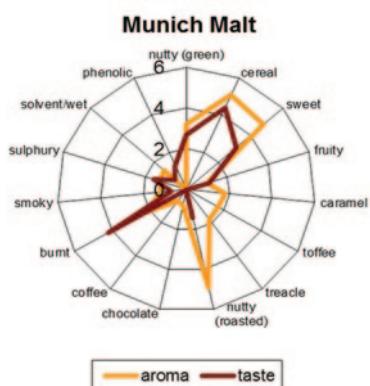
## BREWER'S SPECIAL

# Viking Munich Light

# Viking Munich Dark

**MALT CHARACTER**

Curing temperatures in the range of 110–120°C give the malt an aromatic, nutty character. The high curing temperature results in clearly reduced enzyme activities compared to Pilsner Malt.

**FLAVOR CONTRIBUTION****APPLICATIONS**

Munich Malt is ideal malt for dark lagers, festival beers and bocks for underlining malty flavors and full bodied taste. The decreased enzyme activities have to be taken into consideration when designing the brewing recipe.

## DID YOU KNOW?

*The Munich malt was born relatively recently, in the 19th century. Its father was one man - Gabriel Sedlmayr II. This German visionary perfected the technology of malt drying, using British solutions as a model. Thanks to that, the – apparently – unpleasant smoke tones, spoiling the quality of beer, disappeared from Dunkel type beers.*

**MALT SPECIFICATION**

moisture	%	max. 5.0
extract fine	% dm	min. 78.0
color (Light)	°EBC	14–18
color (Dark)	°EBC	20–24
free amino nitrogen	mg/l	min. 120
protein	% dm	max. 11.5
saccharification	min.	max. 15

**PRODUCTION AND PACKAGING**

Munich Malt is produced in Finland and Poland.

Available in bulk, containers, big bags and 25 kg pp bags.

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

**GENERAL REMARKS**

Our products are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our products are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.



BREWER'S SPECIAL

# Viking Caramel Wheat



## MALT CHARACTER

Caramel Wheat is made from green wheat malt. A high degree of caramelization is characteristic of this malt. The amyloytic activity of Caramel Malt is zero. Maillard products formed in the process add creaminess, body, color and roasted wheat flavors. Caramel Wheat usually can be used to improve foam and foam retention.

## FLAVOR CONTRIBUTION

Caramel Wheat has sweet, malty, bready, dark toast flavor.

## APPLICATIONS

Small amounts can be used for all beer styles using caramel malts such as IPAs, Pale Ales, low alcohol beers, wheat beers, Bock beers. Caramel Wheat Malts are well suited for color adjustment and flavor enrichment.

## MALT SPECIFICATION

moisture	%	max. 6.0
extract fine	% dm	min. 70.0
color	°EBC	100 ± 50

## PRODUCTION AND PACKAGING

Caramel Wheat is produced in Poland.

As a standard malt is available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

All the used barley varieties are tested and approved for malting and brewing.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

*Caramel malts give intensity to the wort colour, improve the beer's head retention and increase its density.*

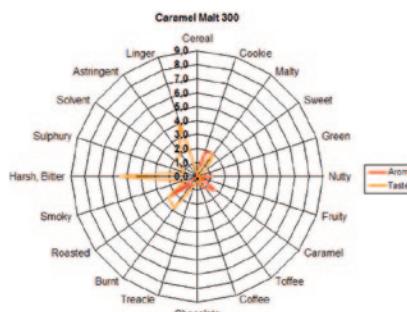
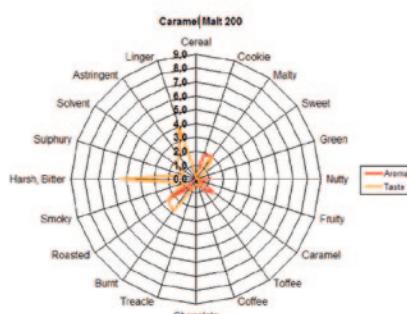
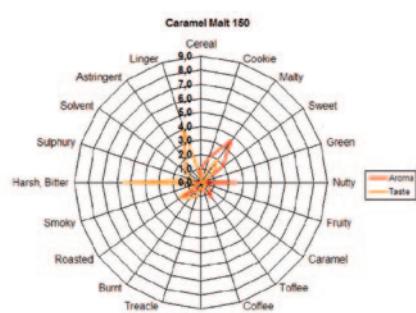
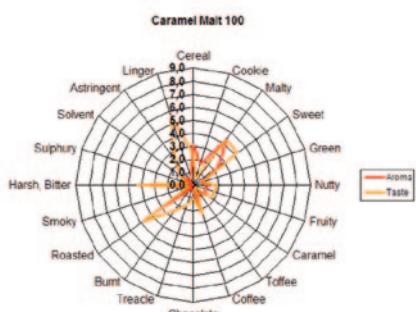
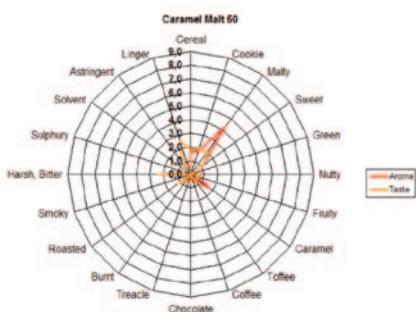


## BREWER'S SPECIAL

# Viking Caramel Malts

**MALT CHARACTER**

Viking Caramel Malts are made from green malt. A high degree of caramelization is characteristic of this malt. The amylolytic activity of Caramel Malts is zero. Maillard products formed in the process can act as antioxidants and contribute to flavor stability. Caramel Malts usually improve foam quality and head retention.

**FLAVOR CONTRIBUTION****MALT SPECIFICATION**

moisture (Caramel 30)	%	max. 7.0
moisture (Caramel 50-600)	%	max. 6.0
extract fine (Caramel 30-200)	% dm	min. 75.0
extract fine (Caramel 300)	% dm	min. 73.0
extract fine (Caramel 400-600)	% dm	min. 68.0
color (Caramel 30)	°EBC	40 ± 10
color (Caramel 50)	°EBC	50 ± 10
color (Caramel 100)	°EBC	100 ± 10
color (Caramel 150)	°EBC	150 ± 10
color (Caramel 200)	°EBC	200 ± 20
color (Caramel 300)	°EBC	300 ± 30
color (Caramel 400)	°EBC	400 ± 50
color (Caramel 600)	°EBC	600 ± 50

## APPLICATIONS

Caramel Malts are well suited for winter beers, ale-type beers and other aromatic beers like dark lagers and stouts. Small amounts can be used for color adjustment and flavor enrichment of pale lagers as well. Compared to Cara Plus, Caramel Malts have a stronger character.

## PRODUCTION AND PACKAGING

Caramel Malts are produced in Finland and Poland, but Caramel 30, 400 and 600 only in Poland.

Available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used

All the used barley varieties are tested and approved for malting and brewing.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

*Viking Malt's caramel malts are made from green malt taken from germination just before kilning. The raw material for our caramel malts is exactly the same as for high quality pilsner malt.*



## BREWER'S SPECIAL

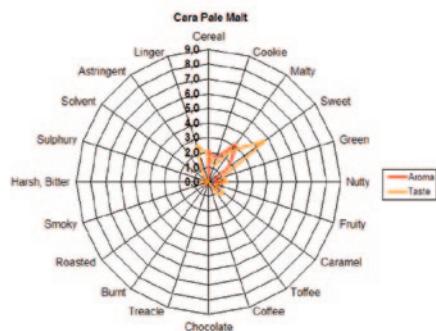
# Viking Caramel Pale



## MALT CHARACTER

Caramel Pale Malt is produced from green malt. Despite the low color value, Caramel Pale is true caramel malt, i.e. the starch has been gelatinized and saccharified within the kernel. Caramel Pale is sweet and caramel like having also toffee and fruity notes. The enzymatic activity of Caramel Pale is negligible.

## FLAVOR CONTRIBUTION



## APPLICATIONS

Caramel Pale is used to produce a full-bodied beer with a clean, round flavor. Due to its low color value it is suitable also for light colored beers. Dosage rate is typically up to 30%.

## MALT SPECIFICATION

moisture	%	max. 7.5
extract fine	% dm	min. 77.0
color	°EBC	8 ± 2

## PRODUCTION AND PACKAGING

Caramel Pale Malt is produced in Poland and Finland.

As a standard malt is available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

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Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

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Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

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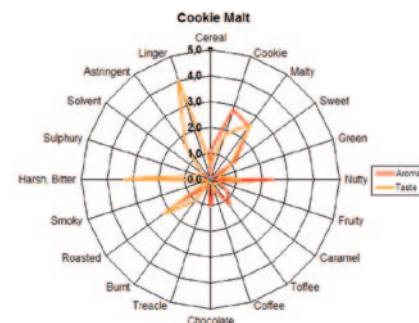


## BREWER'S SPECIAL

# Viking Cookie Malt

**MALT CHARACTER**

Cookie Malt is produced by roasting from high quality pilsner malt. The amylolytic activity of Cookie Malt is negligible. As its name stands Cookie Malt contributes mild and pleasant roasted cereal flavors and aromas with hints of pop-corn and biscuits.

**FLAVOR CONTRIBUTION****APPLICATIONS**

Cookie Malt is mainly included in grist for ales and lagers, but it can also be used for any beer where nice golden color and typical flavors are favored. Already with rather low dosage portions the effect on flavor can be noted. Typical dosage rate of Cookie Malt is normally under 20%.

**MALT SPECIFICATION**

moisture	%	max. 6.0
extract fine	% dm	min. 72.0
color	°EBC	40–60

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

**PRODUCTION AND PACKAGING**

Cookie Malt is produced in Finland and Poland.

Available in bulk, containers, big bags and 25 kg pp bags.

**GENERAL REMARKS**

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*"Cookie" in name of malt refers to flavor attributes that are familiar from bakery products. Cookie malt is lightly roasted with properties of black and chocolate malt. They bring toasted characteristics typical in Belgian beers or Ales.*



BREWER'S SPECIAL

# Viking Chocolate Light Malt



## MALT CHARACTER

Chocolate Light Malt is produced by roasting from pilsner malt. The amylolytic activity of Chocolate Malt is zero. The amount of fermentable extract is rather low.

## FLAVOUR CONTRIBUTION

"Chocolate" refers primarily to the malt's color, not its flavor. This malt will lend various levels of aroma, a deep red color, and a nutty / roasted taste, depending on the amount used. Aromas and tastes of coffee and chocolate can be found and they are well balancing the overall taste.

## APPLICATIONS

Chocolate Malt is mainly included in for Porters and Stouts, but it can also be used for any other dark colored beers like Dark Ales due to its strong coloring value. Chocolate Malt contributes roasted flavors and aromas with hints of dark chocolate and coffee in any beer. Already with rather low dosage portions a remarkable increase in color can be found together with changes in flavor and aroma. Typical dosage rate of Chocolate Malt is normally under 5–10%.

## MALT SPECIFICATION

moisture	%	max. 5.0
extract	%	min. 68.0
color	°EBC	350–450

## PRODUCTION AND PACKAGING

Chocolate Light Malt is produced in Poland.

Available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*Chocolate malt, unlike caramel malts, is obtained from dry malt, which undergoes caramelisation in the process of roasting as a result of exposing sugars to the operation of high temperature.*

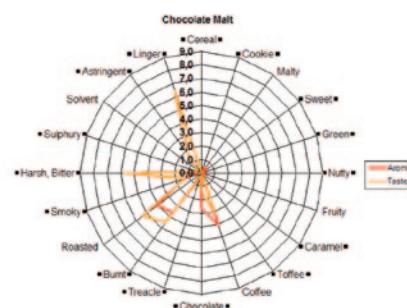


## BREWER'S SPECIAL

# Viking Chocolate Dark Malt

**MALT CHARACTER**

Chocolate Dark Malt is produced by roasting from pilsner malt. Final temperature and roasting time is somewhat lower compared to our Black Malt. The amyloytic activity of Chocolate Dark Malt is zero. The amount of fermentable extract is rather low.

**FLAVOUR CONTRIBUTION**

Flavor of Chocolate Dark Malt is burnt, bitter and smoky, but not that intense as with Black Malt. Aromas and tastes of coffee and chocolate can be found and they are well balancing the overall taste.

**APPLICATIONS**

Chocolate Dark Malt is mainly included in grists for Porters and Stouts, but it can also be used for any other dark colored beers like Dark Ales due to its strong coloring value. Chocolate Malt contributes roasted flavors and aromas with hints of dark chocolate and coffee in any beer. Already with rather low dosage portions a remarkable increase in color can be found together with changes in flavor and aroma. Typical dosage rate of Chocolate Dark Malt is normally under 10%.

**MALT SPECIFICATION**

moisture	%	max. 5.0
extract fine	% dm	min. 67.0
color	°EBC	800–1000

**PRODUCTION AND PACKAGING**

Chocolate Dark Malt is produced in Finland and Poland.

Available in bulk, containers, big bags and 25 kg pp bags.

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

**GENERAL REMARKS**

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*Chocolate malt, unlike caramel malts, is obtained from dry malt, which undergoes caramelisation in the process of roasting as a result of exposing sugars to the operation of high temperature.*

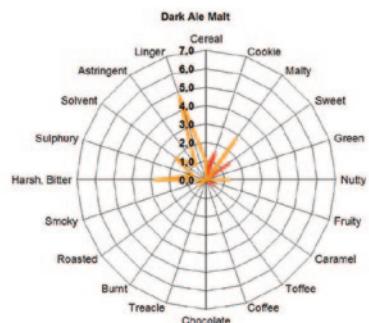


## BREWER'S SPECIAL

# Viking Dark Ale Malt

**MALT CHARACTER**

The curing temperature of Dark Ale Malt is 105–110°C. A special malting program and prolonged kilning ensure the right flavor. The enzymatic activity of Dark Ale is low. Flavor of Dark Ale malt is cereal and sweet with some nice aromas of roasted nuts and fruits.

**FLAVOR CONTRIBUTION****APPLICATIONS**

Dark Ale is an aromatic malt recommended for any beer to enhance color and aroma. Ideal for Brown Ales and Dark lagers. Recommended usage up to 30 % of the grist.

**MALT SPECIFICATION**

moisture	%	max.5.0
extract fine	% dm	min. 78.0
color	°EBC	30–40
wort pH		max. 5.8
protein	% dm	max. 11.5

**PRODUCTION AND PACKAGING**

Dark Ale Malt is produced in Finland.

Available in bulk, containers, big bags and 25 kg pp bags.

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

**GENERAL REMARKS**

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

*When producing Dark Ale Malt steeping takes 1 day, germination takes 5-6 days, kilning takes 1 day and then 1 day for deculming the malts, moving them to malt storage silo and having the analysis done. 8-9 days under maltster's intensive surveillance.*



VIKING MALT

## BREWER'S SPECIAL

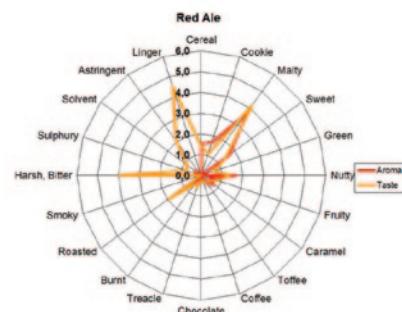
# Viking Red Ale Malt



## MALT CHARACTER

Red Ale Malt is aromatic malt rich in melanoidins. It is recommended for dark beers to enhance reddish color and aroma. A special malting program is used to ensure the right flavor and aroma through controlled Maillard reaction. Flavor of Red Ale Malt is malty and bitter but also roasted and nutty flavors can be found with long lasting linger. Red Ale Malt is also slightly acidic. The amyloytic activity of Red Ale Malt is low.

## FLAVOR CONTRIBUTION



## APPLICATIONS

Red Ale Malt is strongly aromatic malt, with coloring capability. It is ideal for special ales like APA, IPA, Red Ale and Dark Lagers. Recommended usage is up to 20% of the grist.

## MALT SPECIFICATION

moisture	%	max. 5.0
extract fine	% dm	min. 75.0
color	°EBC	70 ± 10

## PRODUCTION AND PACKAGING

Red Ale Malt is produced in Finland and Poland.

Available in bulk, containers big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our products are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our products are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*Viking Red Ale Malt contains aromatic compounds called melanoidins, which originate as a result of carbohydrates' reactions with amino-acids in high kilning temperatures.*



## BREWER'S SPECIAL

# Viking Golden Ale Malt



## MALT CHARACTER

Viking Golden Ale Malt is made from 2-row spring barley. Malting process parameters have been chosen to promote high degree of modification for easy processing. Viking Golden Ale Malt has reduced enzymatic potential.

Strong flavor contributes malty, cookie, sweet and nutty notes with great balance of those. Golden Ale Malt is ideal for ales and special lagers. The coloring power of Golden Ale Malt is not too high, which makes it also suitable for subtle color correction of regular lagers giving noticeably hue towards gold.

## FLAVOR CONTRIBUTION



## APPLICATIONS

For all kind of beers but specially golden color ales and lagers. Usage rate up to 50%.

## MALT SPECIFICATION

moisture	%	max. 5.0
extract fine	% dm	min. 80.0
color	°EBC	9–14
protein	% dm	max. 11.5
FAN	mg/l	min. 130
Kolbach index	%	min. 43
friability	%	min. 85

## PRODUCTION AND PACKAGING

Viking Golden Ale Malt is produced in Finland.

Available from Lahti Finland as whole kernel or crushed form, in bulk, big bags and 25 kg bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic certificates are permitted locally.

No GMO raw materials are used.

All the used barley varieties are tested and approved for malting and brewing.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

*Main malting barley varieties in Finland are Tipple, Harbinger and Barke. All these varieties show good farming performance in our Northern circumstances.*



VIKING MALT

#### BREWER'S SPECIAL

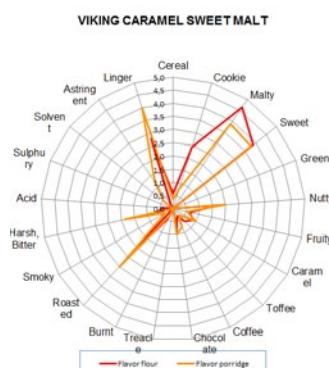
# Viking Caramel Sweet Malt



#### MALT CHARACTER

Viking Caramel Sweet Malt is made from green malt. A very high degree of caramelization and special mild sweetness in taste is characteristic for this malt. The amyloytic activity of Caramel Sweet Malt is zero. Maillard products formed in the process can act as antioxidants and contribute to flavor stability. Caramel Sweet Malt is typically connected with foam quality and head retention.

#### FLAVOR CONTRIBUTION



#### MALT SPECIFICATION

moisture	%	max. 7.0
extract fine	% dm	min. 75.0
color	°EBC	50–75

#### APPLICATIONS

Caramel Malts are well suited for winter beers, ale-type beers and other aromatic beers like dark lagers and stouts. Small amounts can be used for color adjustment and flavor enrichment of pale lagers as well. Due to very pleasant taste the usage rate can be up to 30% .

#### PRODUCTION AND PACKAGING

Viking Caramel Sweet Malts are produced in Finland.

Available in bulk, containers, big bags and 25 kg pp bags.

#### STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

#### GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

All the used barley varieties are tested and approved for malting and brewing.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

*Viking Malt's caramel malts are made from green malt taken from germination just before kilning. The raw material for our caramel malts is exactly the same as for high quality pilsner malt.*

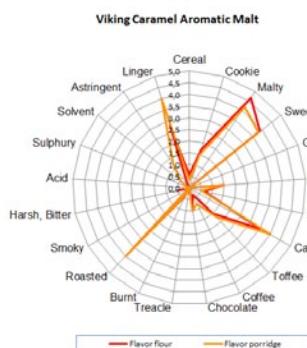


## BREWER'S SPECIAL

# Viking Caramel Aromatic Malt

**MALT CHARACTER**

Viking Caramel Aromatic Malt is made from green malt. A very high degree of caramelization and full caramel taste is characteristic for this malt. The amyloytic activity of Caramel Aromatic Malt is zero. Maillard products formed in the process can act as antioxidants and contribute to flavor stability.

**FLAVOR CONTRIBUTION****MALT SPECIFICATION**

moisture	%	max. 6.0
extract fine	% dm	min. 75.0
color	°EBC	160–200

**APPLICATIONS**

Caramel Aromatic Malt is well suited for winter beers, ale-type beers and other aromatic beers like dark lagers and stouts. Small amounts can be used for color adjustment and flavor enrichment of pale lagers as well. Caramel Aromatic Malt gives nice red-golden hues into beer. Recommended dosage rate up to 20%.

**PRODUCTION AND PACKAGING**

Caramel Aromatic Malt is produced in Finland.

Available in bulk, containers, big bags and 25 kg pp bags.

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

**GENERAL REMARKS**

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

All the used barley varieties are tested and approved for malting and brewing.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

*Viking Malt's caramel malts are made from greenmalt taken from germination just before kilning. The raw material for our Caramel malts is exactly the same as for high quality pilsner malt.*

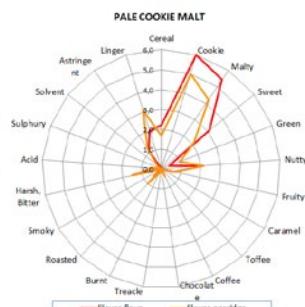


## BREWER'S SPECIAL

# Viking Pale Cookie Malt

**MALT CHARACTER**

Viking Pale Cookie Malt is produced by roasting high quality pilsner malt. The amylolytic activity of Cookie Malt is negligible. As its name stands Pale Cookie Malt contributes very mild and pleasant toasted cookie flavor and aromas with maltiness in it. Sweetness in this malt is rather low.

**FLAVOR CONTRIBUTION****APPLICATIONS**

Viking Pale Cookie Malt can be included in grist for any beer where nice golden color and typical mild toasted flavors are favored. Already with rather low dosage portions the effect on flavor can be noted. Typical dosage rate of Pale Cookie Malt is normally under 25%.

**MALT SPECIFICATION**

moisture	%	max. 6.0
extract fine	% dm	min. 75.0
color	°EBC	20–30

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

**PRODUCTION AND PACKAGING**

Viking Pale Cookie Malt is produced in Finland.

Available in bulk, containers, big bags and 25 kg pp bags.

**GENERAL REMARKS**

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*"Cookie" in name of malt refers to flavor attributes that are familiar from bakery products. Pale Cookie Malt is very tenderly roasted pleasant tasting malt. The origin of this malt is our well known world class Pilsner Malt.*



## BREWER'S SPECIAL

# Viking Sahti Malt

**MALT CHARACTER**

Sahti Malt is a traditional Finnish malt blend containing high quality pilsner malt and variety of special malts to reach its unique flavor and aroma. When doing Sahti blend a special emphasis is made to make sure the amylase activities and FAN levels are high enough for smooth mashing and fermenting operations.

**FLAVOR CONTRIBUTION**

Sahti Malt blend has a strong, round and malty flavor. Hints of slightly roasted nuts and fruits can be found combined with some sweetness.

**APPLICATIONS**

Sahti Malt blend is planned to be used only for Sahti manufacturing.

**MALT SPECIFICATION**

moisture	%	max. 5.0
extract fine	% dm	min. 80.0
color	°EBC	7,5 ± 2,5
sacharification	min	max. 20
free amino nitrogen	mg/l	min. 130
diastatic power	WK dm	min. 200

**PRODUCTION AND PACKAGING**

Sahti Malt is produced in Finland.

Available in crushed form in 25 kg bags.

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

**GENERAL REMARKS**

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

*The contemporary Sahti is a beer based on barley malt, however it may contain both oats and rye, which makes up up to 10% of the feed, though some, ancient recipes are wholly based on this grain. Each household in Finland making Sahti does it their own way though, which makes this beer really exceptional.*



BREWER'S SPECIAL

# Viking Rye Malt



## MALT CHARACTER

Viking Rye is produced from high quality rye. The malting process does not differ much from pilsner malt production. Final air-on temperature is normally 72-80°C.

## FLAVOR CONTRIBUTION

Viking Rye Malt gives bready and honey flavor.

## APPLICATIONS

Viking Rye Malt can be used in breweries specialty rye beers, Rye Lager, Rye Ale. Gives golden color and typical rye flavor. We recommend to keep the dosage of Rye Malt under 7% to avoid wort separation problems.

## MALT SPECIFICATION

moisture	%	max. 6.0
extract	% dm	min. 81.0
color	°EBC	4-10

## PRODUCTION AND PACKAGING

Viking Rye Malt is produced in Poland.

Available (whole grains) in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22 000 and ISO 14 000.

No GMO raw materials are used.

All the used rye varieties are tested and selected for malting and brewing.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*Similar to wheat malt, rye malt also has no husks. It is also more brittle than barley malts and may be crushed more easily.*



## BREWER'S SPECIAL

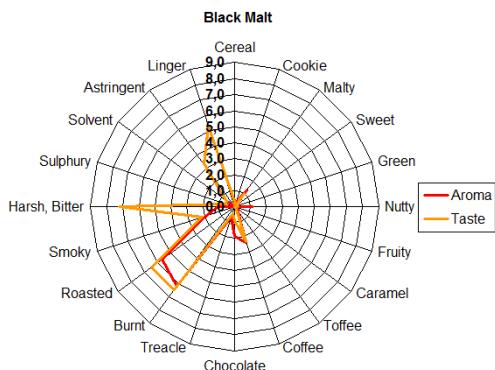
# Viking Black Malt

**MALT CHARACTER**

Black Malt is produced by roasting pilsner malt. Final temperature is more than 200°C. The amylolytic activity of Black Malt is zero. The amount of fermentable extract is low.

**FLAVOR CONTRIBUTION**

The flavor of Black Malt is harsh but less acrid than that of roasted barley. Burnt and smoky flavors are strong.

**APPLICATIONS**

Black Malt is used in dark beers like stouts and porters, mainly for its strong coloring ability. Normally portions 1–2% give a remarkable increase in color without significant change in flavor. By raising the percentage of Black Malt in malt bill the changes in taste can be found quickly. Dosage rates more than 10% are rare.

**MALT SPECIFICATION**

moisture	%	max. 5.0
extract fine	% dm	min. 65.0
color	°EBC	1 300–1 500

**PRODUCTION AND PACKAGING**

Black Malt is produced in Finland and Poland.

Available in bulk, containers, big bags and 25 kg pp bags.

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year. Keep malts away from hot surfaces and do not inhale the malt dust.

**GENERAL REMARKS**

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*Viking Black Malt is the darkest colored malt we can provide. The right color formation takes place only within few minutes in the end of the roasting process.*

BREWER'S SPECIAL

# Viking Pearled Black Malt



## MALT CHARACTER

Pearled Black Malt is produced by roasting pearled pilsner malt. Barley husk is removed by pearlimg before malting and roasting. Malt has bitterness due to pearlimg and nice dark-coffee color and aroma. Malt has no amyloytic activity and the amount of fermentable extract is low.

## FLAVOR CONTRIBUTION

The flavor of Black Pearled Malt is harsh but less bitter than that of black malt or roasted barley. Burnt and smoky flavors are strong.

## APPLICATIONS

Pearled Black Malt is used in dark beers like stouts and porters, mainly for its strong coloring ability. Normally portions 1–2% give a remarkable increase in color without significant change in flavor. By raising the percentage of Pearled Black Malt in malt bill the changes in taste can be found quickly, but slower than for typical Black Malt. Dosage rates more than 10% are rare.

## MALT SPECIFICATION

moisture	%	max. 5.0
extract fine	% dm	min. 65.0
color	°EBC	800–1 200

## PRODUCTION AND PACKAGING

Pearled Black Malt is produced in Poland.

Available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year. Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*Black malt is a source of strongly colouring, aromatic and flavouring substances. It is added to dark pastries, rye bread, bread rolls and also to wholemeal products. To extract the whole taste and aroma from the malt, it should be ground before using.*



## BREWER'S SPECIAL

# Viking Roasted Barley

**MALT CHARACTER**

Roasted Barley is produced by roasting good quality malting barley grains. The roasting process is similar to that of Black Malt with extra care taken to not burn the grain. Final temperature is more than 200°C.

**FLAVOR CONTRIBUTION**

The flavor of Roasted Barley is harsh and bitterer than that of black malt. Burnt and smoky flavors are strong.

**APPLICATIONS**

Roasted Barley is used in dark beers like stouts and porters, mainly for its strong coloring ability. Roasted barley will impart a dry flavor and substantial color.

**MALT SPECIFICATION**

moisture	%	max. 5.0
extract fine	% dm	min. 70.0
color	°EBC	min. 900

**PRODUCTION AND PACKAGING**

Roasted Barley is produced in Poland.

As a standard malt is available in bulk, containers, big bags and 25 kg pp bags.

**STORAGE AND SAFETY**

Roasted Barley should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep products away from hot surfaces and do not inhale the malt dust.

**GENERAL REMARKS**

Our products are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our products are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*Roasted grains of non-malted crops, such as barley, wheat or rye give beers not only color, but also characteristic, slightly crude 'grain' aftertaste. They find broad use in brewing special and holiday beers.*



## BREWER'S SPECIAL

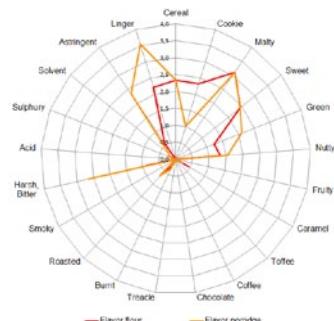
# Viking Dextrin Malt

**MALT CHARACTER**

Viking Dextrin Malt has an outstanding flavor after going through special steeping and germination conditions and prolonged kilning program. During first steps of kilning the green malt is put through demanding kilning conditions before long lasting mild drying period. The amylolytic activity of this Dextrin Malt is modest.

**FLAVOR CONTRIBUTION**

Dextrin Malt contributes to pleasant sweet, caramel, toffee and malty type flavors and aromas with hints of cookie.

**APPLICATIONS**

Viking Dextrin Malt can be used in grists for ales and lagers to give fullness and sweetness in overall taste, supporting good head retention. As Dextrin Malt is light colored with not too overwhelming taste dosage rate can be up to 30%.

**MALT SPECIFICATION**

moisture	%	max. 6.5
extract fine	% dm	min. 79.0
color	°EBC	10–16
<b>Other typical analysis values</b>		
protein	% d.m.	min. 10.0
apparent attenuation	%	min. 70
FAN	mg/l	140–180
diastatic power	WK dm	120–180

**PRODUCTION AND PACKAGING**

Dextrin Malt is produced in Finland.

As a standard malt is available in 25 kg pp/pe bags.

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

**GENERAL REMARKS**

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

All the used barley varieties are tested and approved for malting and brewing.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

*In Finland, malting barley is delivered directly from nearby farms to our malthouse. The average distance is only about 50 km. Farms have also their own drying equipments.*

*The immediate drying after harvest to the low storage moisture (< 14 %) keeps the barley vital and safe even couple of years.*



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# BREWER'S ORGANIC

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Our Organic choice for organic brews. No pesticides or artificial fertilizers are used in the chain of production. Carefully selected lots from the tested malting barley varieties that are suitable for organic cultivation. They possess the same primary malt characters as their non-organic twins.



BREWER'S ORGANIC

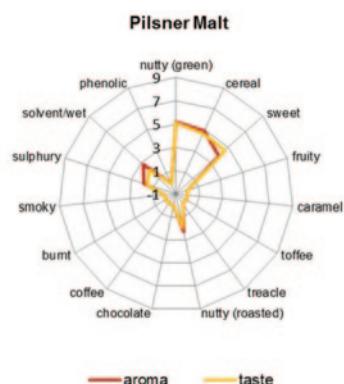
# Viking Pilsner Malt Organic



## MALT CHARACTER

Organic Pilsner Malt is made from 2-row organic spring barley. Steeping and germination conditions are chosen to promote even germination and homogenous modification. The final air-on temperature in kilning is typically 80–85°C. Pilsner Malt flavor is usually described as slightly nutty and biscuit.

## FLAVOUR CONTRIBUTION



## APPLICATIONS

Organic Pilsner Malt can be used for all kind of organic beers or whiskies. The color of the pilsner malt is low.

## MALT SPECIFICATION

moisture	%	max. 5.0
extract fine	% dm	min. 79.0
color	°EBC	3–5
protein	% dm	max. 12.5
soluble nitrogen	mg/100g	600–900
free amino nitrogen	mg/l	min. 130
friability	%	min. 75
diastatic power	WK dm	min. 220

## PRODUCTION AND PACKAGING

Organic Pilsner Malt is produced in Finland and Poland.

As a standard malt is available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odourless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*All our organic malts are produced of special, carefully selected brewing barley varieties, grown in accordance with the standards of organic farming. The crops are grown without using artificial fertilizers, herbicides and genetically modified organisms (GMO). Carefully planned crop rotation with a few years cycle is also of key importance.*



BREWER'S ORGANIC

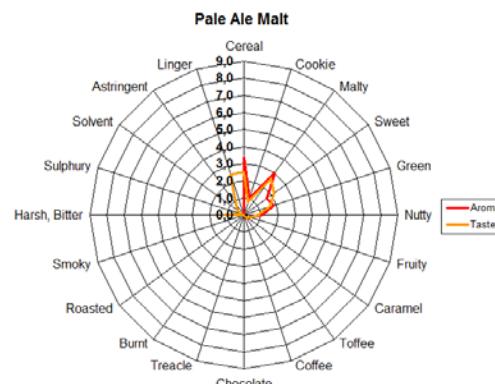
# Viking Pale Ale Malt Organic



## MALT CHARACTER

Organic Pale Ale Malt is made from 2-row spring barley. High degree of modification promotes easy processability. Malt flavor contributes specially to sweet and nutty notes. It is ideal malt for ales and special lagers. The colouring power of Pale Ale Malt is not too strong, which makes it also suitable for subtle colour correction of regular lagers.

## FLAVOR CONTRIBUTION



## APPLICATIONS

For all kind of beers or whiskies. The color of the pale ale malt is rather low.

## MALT SPECIFICATION

moisture	%	max. 5.0
extract fine	% dm	min. 78.0
color	°EBC	4–7
protein	% dm	max. 12.5
Kolbach index	%	min. 43
friability	%	min. 85

## PRODUCTION AND PACKAGING

Organic Pale Ale Malt is produced in Finland and Poland.

As a standard malt is available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odourless place. Under these conditions the shelf-life of malt is minimum one year. Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*All our organic malts are produced of special, carefully selected brewing barley varieties, grown in accordance with the standards of organic farming. The crops are grown without using artificial fertilizers, herbicides and genetically modified organisms (GMO). Carefully planned crop rotation with a few years cycle is also of key importance.*



BREWER'S ORGANIC

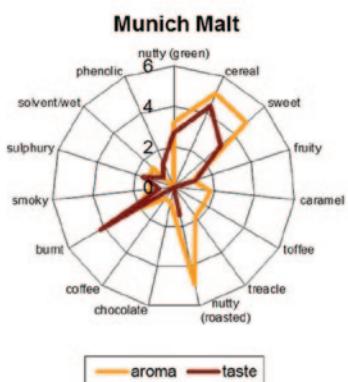
# Viking Munich Light Organic



## MALT CHARACTER

Curing temperatures in the range of 110–120°C give the malt an aromatic, nutty character. The high curing temperature results in clearly reduced enzyme activities compared to Pilsner Malt.

## FLAVOR CONTRIBUTION



## APPLICATIONS

Organic Munich Malt is ideal malt for dark lagers, festival beers and bocks for underlining malty flavors and full bodied taste. The decreased enzyme activities have to be taken into consideration when designing the brewing recipe.

## MALT SPECIFICATION

moisture	%	max. 5.0
extract fine	%	min. 78.0
color	°EBC	14–20
protein	%	max. 12.5

## Other typical analysis values

free amino nitrogen	mg/l	130–170
friability	%	min. 75
saccharification	min.	max. 15

## PRODUCTION AND PACKAGING

Munich Light Organic is produced in Finland and Poland.

As a standard malt is available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

All our organic malts are produced of special, carefully selected brewing barley varieties, grown in accordance with the standards of organic farming. The crops are grown without using artificial fertilizers, herbicides and genetically modified organisms (GMO). Carefully planned crop rotation with a few years cycle is also of key importance.



**VIKING MALT**

BREWER'S ORGANIC

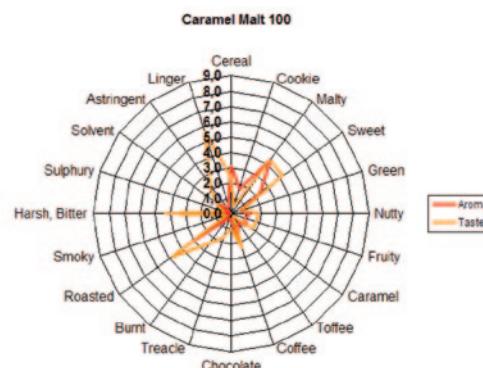
# Viking Caramel Malt 100 Organic



## MALT CHARACTER

Organic Caramel Malt 100 is made from organic green malt. A high degree of caramelization is characteristic of this malt. The amyloytic activity of Organic Caramel Malt 100 is zero. Maillard products formed in the process can act as antioxidants and contribute to flavor stability. Organic Caramel Malt 100 usually improves foam quality and head retention.

## FLAVOR CONTRIBUTION



## APPLICATIONS

Organic Caramel Malt 100 is well suited for winter beers, ale-type beers and other aromatic beers like dark lagers and stouts. Small amounts can be used for color adjustment and flavor enrichment of pale lagers as well.

## MALT SPECIFICATION

moisture	%	max. 6.0
extract fine	% dm	min. 75.0
color	°EBC	100 ± 10

## PRODUCTION AND PACKAGING

Organic Caramel Malt 100 is produced in Finland and Poland.

As a standard malt is available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

All the used barley varieties are tested and approved for malting and brewing.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*All our organic malts are produced of special, carefully selected brewing barley varieties, grown in accordance with the standards of organic farming. The crops are grown without using artificial fertilizers, herbicides and genetically modified organisms (GMO). Carefully planned crop rotation with a few years cycle is also of key importance.*



BREWER'S ORGANIC

# Viking Black Malt Organic



## MALT CHARACTER

Organic Black Malt is produced by roasting organic pilsner malt. Final temperature is more than 200°C. The amylolytic activity of Organic Black Malt is zero. The amount of fermentable extract is low.

## FLAVOUR CONTRIBUTION

The flavor of Organic Black Malt is harsh but less acrid than that of roasted barley. Burnt and smoky flavors are strong.

## APPLICATIONS

Organic Black Malt is used in stouts and porters, mainly for its strong coloring ability. Normally portions 1–2% give a remarkable increase in color without significant change in flavor. By raising the percentage of Organic Black Malt in malt bill the changes in taste can be found quickly. Dosage rates more than 10% are rare.

## MALT SPECIFICATION

moisture	%	max. 5.0
extract fine	% dm	min. 65.0
color	°EBC	1300–1500

## PRODUCTION AND PACKAGING

Organic Black Malt is produced in Finland and Poland.

As a standard malt is available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year. Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

*All our organic malts are produced of special, carefully selected brewing barley varieties, grown in accordance with the standards of organic farming. The crops are grown without using artificial fertilizers, herbicides and genetically modified organisms (GMO). Carefully planned crop rotation with a few years cycle is also of key importance.*



## BREWER'S SPECIAL

# Viking Wheat Malt Organic

**MALT CHARACTER**

Organic Wheat Malt is made from high quality wheat. Varieties suitable for the brewing purposes are used. The malting process does not differ much from pilsner malt production. Final air-on temperature is normally 72–80°C.

**FLAVOR CONTRIBUTION****APPLICATIONS**

Wheat malt is used mainly for wheat beers and some other top fermented beers. Wheat malt is also used for lager beers for flavor enrichment and to improve foam stability. Typical rate of usage is around 50% of the grist for wheat beers and appr. 20% for the premium lagers.

**MALT SPECIFICATION**

moisture	%	max. 6.0
extract fine	% dm	min. 82.0
color	°EBC	3.5–6.5
pH		5.7–6.3
protein	% dm	max. 13.0
sol. nitrogen	mg/100	max. 800
free amino nitrogen	mg/l	90–150
viscosity *	mPas	max. 2.0
diastatic power	WK dm	min. 250

\* (measured at 8.6 %)

**PRODUCTION AND PACKAGING**

Organic Wheat Malt is produced in Finland.

Available in bulk, containers, big bags and 25 kg pp bags.

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

**GENERAL REMARKS**

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

All the used barley varieties are tested and approved for malting and brewing.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*Wheat malt, as opposed to barley malts, has no husk, which usually makes the filtration of wheat beers more difficult. Wheat also has a higher protein content than barley, which actually positively impacts the beer's head retention.*



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# SMOKED SPECIAL

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Tune up your product with our new malts with smoky character. The raw material for smoked malts has gone through the same acceptance procedures as all our other malts. These malts are smoked with novel equipment and technique. Origin of smoke is peat or wood.



## SMOKED SPECIAL

# Viking Smoked Wheat Malt

**MALT CHARACTER**

Smoked Wheat Malt is produced by using the oak from the unique, natural areas located in the north-east of Poland. These are called "Polish Green Lungs". Smoke from oak gives the malt specific and delicate aroma. Due to relatively low processing temperatures, enzymatic activities and other good brewing properties are maintained.

**FLAVOR CONTRIBUTION****APPLICATIONS**

In the brewing Smoked Wheat Malt can be used for beer called "grodziskie" and other special beers. Smoked Malt can be also used in bakeries as a spice.

**MALT SPECIFICATION**

moisture	%	max. 9.0
extract fine	% dm	min. 81.0
color	°EBC	max. 10
protein	% dm	max. 13.5
total phenols	ppm	5.0–10.0

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odourless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

**PRODUCTION AND PACKAGING**

Smoked Wheat Malt is produced in Poland.

As a standard malt is available (whole grains) in bulk, containers, big bags and 25 kg pp bags.

**GENERAL REMARKS**

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic certificates are permitted locally.

No GMO raw materials are used.

All the used barley varieties are tested and approved for malting and brewing.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*After 2<sup>nd</sup> World War in Poland, for the production of the classic malt called "grodziski" were used red wheat varieties, giving a higher extract and containing less protein.*

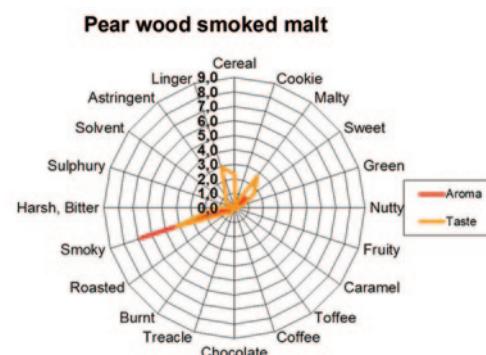


## SMOKED SPECIAL

# Viking Smoked Malt

**MALT CHARACTER**

Smoked Malts are produced from 2-row spring malting barley, null-LOX variety. The flavors of these malts are as with pilsner malt with rather strong smoky flavor depending on type of wood used for smoking. We can use apple, beech, cherry, sweet cherry and pear wood delivered from ecological, clean areas. Due to relatively low processing temperatures, enzymatic activities and other good brewing properties are maintained.

**FLAVOR CONTRIBUTION****APPLICATIONS**

In the brewing Smoked Malts can be considered as pilsner malt with a special aroma as Smoked Malts flavor and taste profile is not too overwhelming. Smoked Malts can be also used in bakeries as a spice.

**MALT SPECIFICATION**

moisture	%	max. 9.0
extract fine	% dm	min. 81.0
color	°EBC	max. 10
protein	% dm	max. 11.5
total phenols	ppm	5.0–10.0

**STORAGE AND SAFETY**

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odourless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

**PRODUCTION AND PACKAGING**

Smoked Malts are produced in Poland.

Available (whole grains) in bulk, containers, big bags and 25 kg pp bags.

**GENERAL REMARKS**

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic certificates are permitted locally.

No GMO raw materials are used.

All the used barley varieties are tested and approved for malting and brewing.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*For smoking our malt we use wood from the unique, natural areas located in the north-east of Poland. These are called "Polish Green Lungs".*



SMOKED SPECIAL

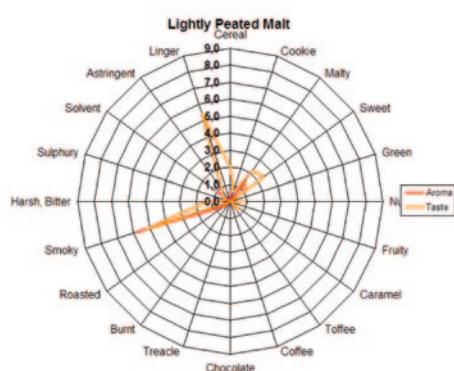
# Viking Lightly Peated Malt



## MALT CHARACTER

The flavor of this malt is as with pilsner malt with hue of peat and smoke. Varieties suitable for peat-curing process are used. Due to relatively low processing temperatures, enzymatic activities and other good brewing properties are maintained.

## FLAVOR CONTRIBUTION



## APPLICATIONS

Lightly Peated Malt can be used in distilleries in whisky production. In the brewing process, as Lightly Peated Malts flavor and taste profile is not too overwhelming, it can be considered as pilsner malt with a special aroma. Lightly Peated Malt can be also used in bakeries as a spice.

## MALT SPECIFICATION

moisture	%	max. 9.0
extract fine	% dm	min. 81.0
color	°EBC	max. 10
protein	% dm	max. 11.5
total phenols	ppm	3.0–10.0

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## PRODUCTION AND PACKAGING

Lightly Peated Malt is produced in Poland.

As a standard malt is available in bulk, containers, big bags and 25 kg pp bags.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

*In Poland malting barley is delivered directly from specialized farms, located close to our malthouse. The average distance is only about 50 km.*

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# DISTILLER'S CHOICE

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Distiller's malts grown under the midnight sun. Malt characters that fulfill the strictest requirements of any whiskey recipe. High in enzymic power and alcohol yield.



DISTILLER'S CHOICE

# Viking Pot Still Rye Malt



## MALT CHARACTER

Pot Still Rye Malt has gone through a special steeping, germination and kilning programs to promote high enzyme activity to support good behavior during pot still process.

## APPLICATIONS

Designed for rye pot still whisky process but may also be used in beer manufacturing.

## MALT SPECIFICATION

moisture	%	max. 7.0
extract fine	% dm	min. 83.5
diastatic power	WK dm	min. 300
alfa-amylase DU	dm	min. 30
GN	g/t	< 0.5

## PRODUCTION AND PACKAGING

Pot Still Rye Malt is produced in Finland.

As a standard malt is available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subject to crop changes.

## DID YOU KNOW?

*In some regions of the world, corn, wheat, oats and even – in Japan – rice are used for the production of whisky.*



VIKING MALT

DISTILLER'S CHOICE

# Viking Enzyme Malt



## MALT CHARACTER

Enzyme Malt is produced either from 2-row or 6-row spring barley. The steeping and germination conditions are chosen to promote enzyme release and synthesis. The kilning program is designed to preserve enzyme activity as possible.

## APPLICATIONS

Enzyme Malt is recommended to use when high portion of adjuncts is used in a brewing process. It is also suitable for production of quality grain whisky and pure alcohol. It can be also used for adjusting the Falling Number of baking flour. In order to optimize ethanol yield Enzyme Malt can be delivered as blends of varieties with different enzyme spectra.

## MALT SPECIFICATION

moisture	%	max. 7.0
extract fine	% dm	min. 76.0
diastatic power	WK dm	min. 620
alfa-amylase DU	dm	min. 70

## PRODUCTION AND PACKAGING

Enzyme Malt is produced in Finland. Available in bulk, containers, big bags and 25 kg pp bags.

## STORAGE AND SAFETY

Malt should be stored in a cool (< 20°C), dry (< 40 RH %) and odorless place. Under these conditions the shelf-life of malt is minimum one year.

Keep malts away from hot surfaces and do not inhale the malt dust.

## GENERAL REMARKS

Our malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Organic, Kosher and other specific certificates are granted locally.

No GMO raw materials are used.

Analysis of our malts are carried out according to EBC Analytica (or similar) when possible.

Product descriptions are subjectable to crop changes.

## DID YOU KNOW?

*The Scotch whisky manufacturing tradition requires to dry germinated barley grains smoking them in peat smoke – thus obtaining the malt.*





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# CONTACT PERSONS

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## SALES FOR CRAFT BREWERIES FROM POLAND



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## PRODUCT AND QUALITY INFORMATION



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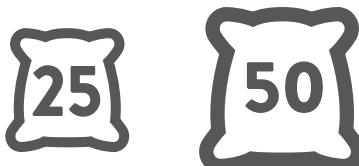
**PARTNERS:** [www.vikingmalt.com/partners](http://www.vikingmalt.com/partners)

## MALT PACKAGING SOLUTIONS

IN BULK



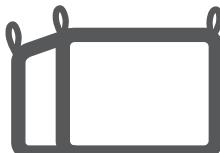
SACKS



BIG BAGS



CONTAINER  
LINER BAGS



## MALT DELIVERY SOLUTIONS

PALLETS



TIPPER



SILO TRUCK



CONTAINER







