

VIKING MALT

DISCOVERING THE WORLD OF MALT

CRAFT PORTFOLIO 2017 Distributed by:





Dear Beer Lovers,

It is with great pleasure that I invite you to become acquainted with our offer of malts prepared especially for brewmasters and whisky producers. As a result of international cooperation and by combining the skills and experience of malters from many countries, Viking Malt is currently the largest producer of roasted malts in the world.

What makes us stand out is the top quality of our product as well as the range of the offer: from classic light malts through caramel and roasted ones to the recently introduced smoked malts. We are able to meet even the highest brewers expectations.

We are fascinated by the world of beer, its dynamic development as well as effects of discovering old recipes and new ideas that emerge during brewing practically every day.

We wish to meet the brewers' expectations and be active at all levels and in all aspects of brewing and beer culture.

Our offer comprises not only products – it's also a model of cooperation based on partnership and trust.

I cordially invite you to join us in discovering the fascinating world of malt and beer.

Marcin Siemion

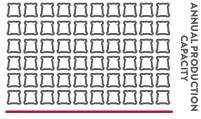
VP Sales & Marketing Viking Malt Group CEO Viking Malt Sp. z`o.o.





TYPES OF MALT





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





DISTRIBUTION TO 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. WE ARE THE
WORLDWIDE LEADER
OF ROASTED MALTS
MARKET







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 involvment. 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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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.





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.

FLAVOR CONTRIBUTION



APPLICATIONS

For all kind of beers or whiskies. The color of the pilsner malt is low.

MALT SPECIFICATION

moisture	%	< 5.0
Illoisture	70	- 5.0
extract fine	% dm	> 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 - glucans	mg/l	< 200
friability	%	>80
diastatic power	WK dm	>250

PACKAGING AND AVAILABILITY

Pilsner malt is available in bulk, containers, big bags and 25 kg pp bags.

Available from Finland and Poland.

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.





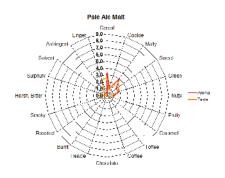
Viking Pale Ale Malt



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
extract fine	% dm	min. 80
color	°EBC	4 – 7
protein	% dm	max 11.5
kolbach index	%	min 43
FAN	mg/l	min. 130
Beta-glucan	mg/l	< 200

PACKAGING AND AVAILABILITY

Pale ale malt is available in bulk, containers, big bags and 25 kg pp bags.

Available from Finland and Poland.

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 $^{\circ}$ 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.









Viking Pale Zero Malt



MALT CHARACTER

Viking Pale Zero Malt is pale malt made from 2row spring barley, so called null lox varieties. Beer brewed from those varieties will have improved taste stability over storage time.

Flavor of Pale Zero contributes specially to malty, sweet and nutty notes. It is suitable for ales and special lagers. The coloring power of Pale Zero Malt is not too strong, which makes it also suitable for subtle color correction of regular lagers.

FLAVOR CONTRIBUTION



APPLICATIONS

Viking Pale Zero is suitable for all kind of beers or whiskies. The color of the pale ale malt is rather low. Usage rate up to 100 %.

MALT SPECIFICATION

5
79
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37
00

PACKAGING AND AVAILABILITY

Pale Zero Malt is available in bulk, containers, big bags and 25 kg pp bags.

Available from Finland and Poland.

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 $^{\circ}$ 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.

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Null Lox barley varieties have very low lipoxygenase activity. Because of this, there is reduced formation of papery off flavor during beer storage.





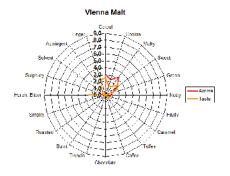
Viking Vienna Malt



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	%	<5
extract fine	% dm	min. 79.0
color	°EBC	7 - 10
FAN	mg/l	min. 130
saccharification	min	max 15

Other typical analysis values

Friability	%	min 80
Protein	% d.m.	<11,5

PACKAGING AND AVAILABILITY

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

Available from Finland and Poland.

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 ∞), 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.

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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!





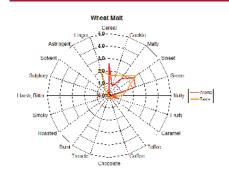
Viking Wheat Malt



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

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
color	°EBC	3.5 – 6.5
рН		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 %)

PACKAGING AND AVAILABILITY

Wheat malt is available in bulk, containers, big bags and 25 kg pp bags.

Available from Finland and Poland.

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.



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.

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.





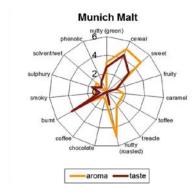
Viking Munich Light Viking Munich Dark



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

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
color (Light)	°EBC	14–18
color (Dark)	°EBC	20-24
FAN	mg/l	min. 120
protein	% dm	max. 11.5
saccharification	min	max. 15

PACKAGING AND AVAILABILITY

Munich malt is available in bulk, containers, big bags and 25 kg pp bags.

BREWER'S SPECIAL

Available from Finland and Poland.

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

Product descriptions are subject to crop





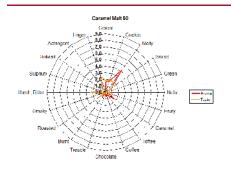
Viking Caramel Malts

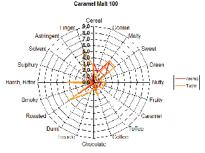


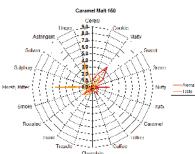
MALT CHARACTER

Viking Caramel Malts are made from green malt by roasting. A high degree of caramelization is characteristic of this malt. The amylolytic activity of Caramel Malts is zero. Maillard products formed in the roasting 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
extract fine (Caramel 300)	% dm	min. 73
extract fine (Caramel 400-600)	% dm	min. 68
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.

PACKAGING AND AVAILABILITY

Caramel malts are available in bulk, containers, big bags and 25 kg pp bags.

Available from Finland and Poland, except Caramel 30, 400 and 600, which are available only from Poland.

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 into a malt roastery from germination just before kilning. The raw material for our Caramel malts is exactly the same as for high quality pilsner malt.





Viking Caramel Wheat



MALT CHARACTER

Caramel Wheat is made from green wheat malt by roasting. A high degree of caramelization is characteristic of this malt. The amylolytic activity of Caramel Malt is zero. Maillard products formed in the roasting 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
color	°EBC	100 ± 50

PACKAGING AND AVAILABILITY

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

Available from Poland.

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 $^{\circ}$ 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.



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



VIKING MALI

BREWER'S SPECIAL

Viking Cara Plus



MALT CHARACTER

Cara Plus malts are dark caramel malts. They are produced using a unique malting program and a novel kilning technique based on indirect heating. Cara Plus products are similar to Caramel Malts but slightly less saccharified and thus dryer in taste. Cara Plus malts do not have enzymatic potential.

FLAVOR CONTRIBUTION



APPLICATIONS

Cara Plus malts are well suited for winter beers, ale-type beers and other aromatic beers where dark color is desired. Typical rate of usage is $5-10\,\%$ of the grist. The flavor of Cara Plus 150, for example, is dominated by cereal, sweet and nutty notes.

MALT SPECIFICATION

moisture	%	max. 6.0
extract fine	% dm	min. 75
color	°EBC	100 ± 10
color	°EBC	150 ± 20
color	°EBC	200 ± 20
color	°EBC	250 ± 20

PACKAGING AND AVAILABILITY

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

Available from Finland.

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 $^{\circ}$ 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?

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





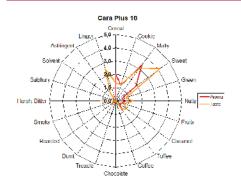
Viking Cara Plus 10



MALT CHARACTER

Cara Plus 10 is a new type of low color caramel malt. Cara Plus 10 is produced using a unique malting program and novel drying technique based on indirect heating. In the process starch is gelatinized and saccharified within the kernel. Cara Plus 10 is sweet and caramel-like.

FLAVOR CONTRIBUTION



APPLICATIONS

Cara Plus 10 has been shown to improve foam formation and flavor stability. Cara Plus 10 is used to produce full-bodied beer with a clean, round flavor. Due to its low color value, Cara Plus 10 is suitable also for light colored beers. Cara Plus 10 is rather similar to Cara Pale and can substitute Cara Pale in most recipes. Typical dosage rate up to 30%.

MALT SPECIFICATION

moisture	%	max. 7.5
extract	%	min. 77
color	°EBC	max 10

PACKAGING AND AVAILABILITY

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

Available from Finland.

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 $^{\circ}$ 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.



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







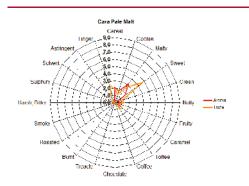
Viking Caramel Pale



MALT CHARACTER

Caramel Pale Malt is produced by roasting 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

PACKAGING AND AVAILABILITY

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 $^{\circ}$ 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?

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





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.

FLAVOR 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
color	°EBC	350-450

PACKAGING AND AVAILABILITY

Chocolate malt is available in bulk, containers, big bags and 25 kg pp bags.

Available from Poland.

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 $^{\circ}$ 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.



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.





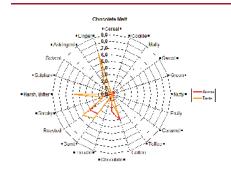
Viking Chocolate Dark Malt



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 amylolytic activity of Chocolate Dark Malt is zero. The amount of fermentable extract is rather low

FLAVOR 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
color	°EBC	800 – 1000

PACKAGING AND AVAILABILITY

Chocolate malt is available in bulk, containers, big bags and 25 kg pp bags.

Available from Finland and Poland.

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.





Viking Dark Ale Malt



MALT CHARACTER

The curing temperature of Dark Ale Malt is $105-110~{}^{\circ}$ 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
color	°EBC	30 – 40
wort pH		max. 5.8
protein	% dm	max. 11.5

PACKAGING AND AVAILABILITY

Malt is available in bulk, containers, big bags and bags 25 kg pp bags.

Available from Finland.

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 $^{\circ}$ 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.



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 Red Ale Malt

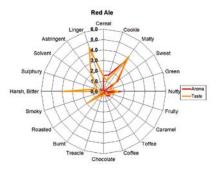


MALT CHARACTER

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 amylolytic 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

MALT SPECIFICATION

moisture	%	max. 5.0
extract fine	% dm	min. 75
color	°EBC	70 ± 10

PACKAGING AND AVAILABILITY

Red Ale Malt is available in bulk, containers big bags and 25 kg pp bags.

Red Ale Malt is available from Finland and Poland.

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.



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





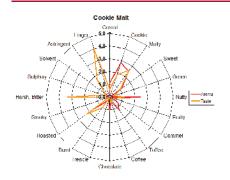
Viking Cookie Malt



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
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.

PACKAGING AND AVAILABILITY

Cookie malt is available in bulk, containers, big bags and 25 kg pp bags.

Available from Finland and Poland.

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.



"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.





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
color	°EBC	7,5 ± 2,5
sacharification	min	max 20
FAN	mg/l	min 130
diastatic power	WK dm	min 200

PACKAGING

Sahti Malt is available in crushed form in 25 kg bags.

Sahti Malt is available from Finland.

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 $^{\circ}$ 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.

BREWER'S SPECIAL

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.





Viking Black Malt

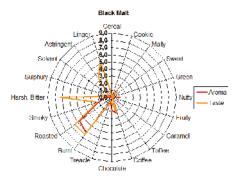


MALT CHARACTER

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
color	°EBC	1 300 – 1 500

PACKAGING AND AVAILABILITY

Black Malt is available in bulk, containers, big bags and 25 kg pp bags.

Available from Finland and Poland.

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 $^{\circ}$ 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.



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.





Viking Pearled Black Malt



MALT CHARACTER

Pearled Black Malt is produced by roasting pearled pilsner malt. Barley husk is removed by pearling before malting and roasting.

Malt has bitterness due to pearling and nice darkcoffee color and aroma. Malt has no amylolytic 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
color	°EBC	800 – 1200

PACKAGING AND AVAILABILITY

Pearled Black Malt is available in bulk, containers, big bags and 25 kg pp bags.

Available from Poland.

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.

BREWER'S SPECIAL

Product descriptions are subject to crop changes.

DID YOU KNOW?

Black malt is a source of strongly colouring, aromatic and flavoring 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.





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
color	°EBC	min. 900

PACKAGING AND AVAILABILITY

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

Available from Poland.

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.



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.

www.vikinamalt.com

Last lindate: 6 9 2016



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.





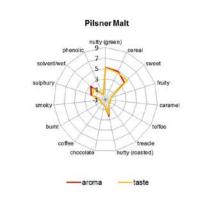
Viking Pilsner Malt Organic



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 slighty nutty and biscuit.

FLAVOR 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
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

PACKAGING AND AVALABILITY

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

Available from Finland and Poland.

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.





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
extract fine	% dm	min. 78
color	°EBC	4 – 7
protein	% dm	max. 12.5
kolbach	%	min 43
friability	%	min 85

PACKAGING AND AVAILABILITY

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

Available from Finland and Poland.

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 $^{\circ}$ 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.





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
extract fine	%	min. 78
color	°EBC	14 – 20
protein	%	max. 12.5

OTHER TYPICAL ANALYSIS VALUES

FAN	mg/l	130 – 170
friability	%	>75
saccharification	min	<15

PACKAGING AND AVAILABILITY

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

Available from Poland and Finland.

STORAGE AND SAFETY

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

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 Caramel Malt 100 Organic



MALT CHARACTER

Organic Caramel Malt 100 is made from organic green malt in a roastery. A high degree of caramelization is characteristic of this malt. The amylolytic activity of Organic Caramel Malt 100 is zero. Maillard products formed in the roasting 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. 5.5
extract fine	% dm	min. 75
color	°EBC	100 ± 10

PACKAGING AND AVAILABILITY

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

Available from Finland and Poland.

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



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.

FLAVOR 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
color	°EBC	1300 – 1500

PACKAGING AND AVAILABILITY

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

Available from Finland and Poland.

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.

COLORADO

Would you like to try something new? Try our three different Colorado malts. They are produced by us under license from Colorado Malting Company - the pioneer of craft malts in the USA.





Colorado Pale Base Malt



MALT CHARACTER

Colorado Pale Base Malt is made from 2-row spring barley. Main variety that is used is Scarlett. After going through custom malting process, the final air-on temperature in kilning is targeted to 85 °C.

FLAVOR CONTRIBUTION

Colorado Pale Base Malts flavor is usually described as slightly nutty, sweet and malty.



APPLICATIONS

Pale Base Malt is a great malt for all malt beers, especially for ales due the high activity and light character. The dosage rate can be up to whole bill but typically portion of 50-70 % and rest of the malt bill can be inactive special malts.

MALT SPECIFICATION

moisture	%	max. 6.0
extract fine	% dm	> 81.0
color	°EBC	max. 5.0
color	SRM*	max. 2.5
diastatic power	WK dm	>300
	°L **	>90
Other typical values		
protein	% dm	min. 10

mg/100g

mg/l

650-750

130-170

>85

sol. nitrogen

free amino nitrogen

PACKAGING

Pale Base Malt is available in bulk, big bags and 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

This malt is produced according to the Colorado Malting Company standards and specification in cooperation with Viking Malt.

Malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Kosher certified.

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?

Did you know that the first bag of Colorado Pale Base Malt was given away for free to a brewer in the mountains of Colorado.

friability

*calculative value: 1 SRM ~ 0,5 x EBC

^{**} calculative value: Lintner =(WK+16)/3,5





COLORADO MALT

Colorado Honig Malt



MALT CHARACTER

Colorado Honig Malt has an unique flavor after going through selected steeping and germination conditions and diverse kilning program. During first steps of kilning the green malt is put through demanding kilning conditions before long lasting gentle drying period. The amylolytic activity of this dextrin type malt is modest.

FLAVOR CONTRIBUTION

As its name says Honig Malt contributes pleasant sweet, caramel, toffee and honey type flavors and aromas with hints of cookie.



APPLICATIONS

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

MALT SPECIFICATION

FAN

moisture	%	max 6
extract fine	% d.m.	min. 80
color	°EBC	10 – 15
color*	SRM	5 – 8
Other typical values		
protein	% d.m.	min. 10
apparent attenuation	%	min. 70
FAN	mg/l	140 – 180

Diastatic Power WK	120-180
Diastatic Power °Lintner**	38-56

- * calculative value: SRM ~ 0,5 x °EBC
- ** calculative value: °Lintner =(WK+16)/3,5

PACKAGING

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 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

This malt is produced according to the Colorado Malting Company standards and specification in cooperation with Viking Malt.

Malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Kosher certified.

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

The population in State of Colorado is ~5,5 million people which is about the same as in Finland. The highest temperature measured in Colorado is +48 deg. C, and the lowest is -52 deg. C In Finland the same figures are +37,2 deg. C and -51,5 deg. C.





COLORADO MALT

Colorado Crystal 10°L



MALT CHARACTER

Colorado Crystal 10°L is caramel malt roasted from well modified green malt. The color is not very offensive and the hue of it is golden–red makes it suitable for many brews. The amylolytic activity of Crystal 10°L is negligible.

FLAVOR CONTRIBUTION

Colorado Crystal 10°L flavor is usually described as Sweet and Caramel with hint of roasted malty flavor.

APPLICATIONS

Crystal 10°L is an excellent choice when beer is wanted to be full-bodied, with clean, round flavor. As the coloring value is not too high, it fits perfectly in many light colored beers. Typical dosage rates are up to 20%.

MALT SPECIFICATION

moisture	%	max. 6
extract fine	%	min.77
color	°EBC	15 - 25
color*	SRM	7 - 13

^{*}calculative value:

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 $^{\circ}$ 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.

PACKAGING

Colorado Crystal 10°is available in big bags and 25 kg pp/pe bags

GENERAL REMARKS

This malt is produced according to the Colorado Malting Company standards and specification in cooperation with Viking Malt

Malts are produced according to ISO 9001, ISO 22000 and ISO 14001.

Kosher certified.

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.

COLORADO

Product descriptions are subjectable to crop changes.



¹ SRM ~ 1 Lovibond unit and 0,5 x EBC

SMOKED SPECIAL

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

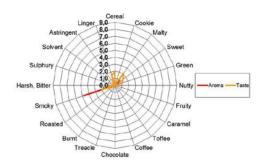


MALT CHARACTER

Smoke 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
colour	°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 $^{\circ}$ 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.

PACKAGING AND AVAILABILITY

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

Available from Poland (whole grains).

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 2nd 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



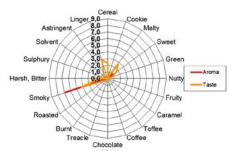
MALT CHARACTER

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

Pear wood smoked malt



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. 82
colour	°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.

PACKAGING AND AVAILABILITY

Smoked malt is available in bulk, containers, big bags and 25 kg pp bags.

Available from Poland (whole grains).

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.



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.



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. 82
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 (< $20~^{\circ}$ 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.

PACKAGING AND AVAILABILITY

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

Available from Poland.

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.



delivered directly from specialized farms, located close to our malthouse. The average distance is only about 50 km. SMOKED SPECIAL

DISTILLER'S CHOICE

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

PACKAGING AND AVAILABILITY

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

Available from Finland.

STORAGE AND SAFETY

Malt should be stored in a cool (< 20 $^{\circ}$ 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.



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





BREWER'S CLASSIC

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
diastatic power	WK dm	min. 620
alfa-amylase DU	dm	min 70

PACKAGING AND AVAILABILITY

Enzyme malt is available in bulk, containers, big bags and 25 kg pp bags.

Available from Finland.

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.



In Finland, the summer is rather short but intensive. In June the day lasts 19 hours in the barley growing areas in the south. The barley varieties used for Enzyme malt production are all breeded in Finland for those special





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