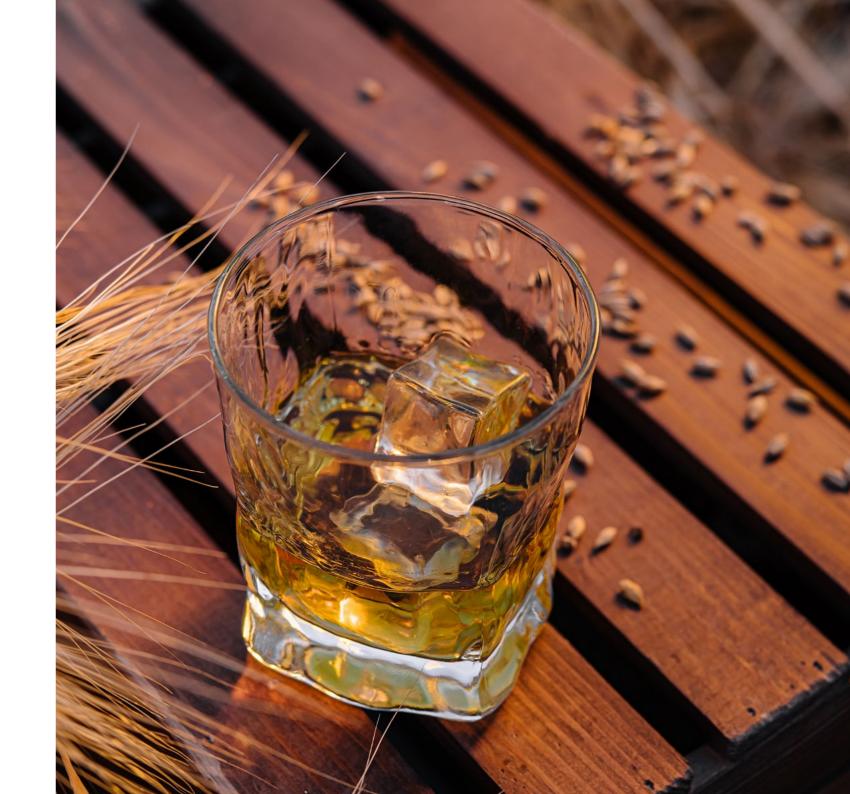


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Malts for Whisky and Distilling



Château Distilling[®] Malt

2.5 - 4.5 EBC 1.5 - 2.2°L

Features: For the production of Château Distilling malt, barley is steeped to 44 - 46% moisture, slightly higher than normally required for Pilsen- or Lager-style malts. Germination temperatures vary between 12°C - 16°C for a period of five days. Kilning cycles start at 50° - 60°C rising to 70° - 75°C.

Characteristics: Used for the production of premium-quality whisky, Château Distilling promotes high fermentability, adequate enzyme potential and sufficient soluble nitrogen (protein) levels. Our Château Distilling malt is gently kilned to preserve enzymes and maximize fermentability.

Usage: Any type of whisky

Percentage: Up to 100% of the mix

Also available as organic



| PARAMETER | UNIT | MIN | MAX |
|----------------------------------|----------|-----------|-----------|
| Moisture | % | | 4.5 |
| Extract (dry basis) | % | 80.0 | |
| Extract (difference fine-coarse) | % | | 2.0 |
| Wort colour | EBC (°L) | 2.5 (1.5) | 4.5 (2.1) |
| Post coloration | EBC (°L) | | 6.0 (2.8) |
| Total protein | % | | 11.5 |
| Soluble protein | % | 3.5 | 4.4 |
| Kolbach Index | % | 35.0 | 45.0 |
| Friability | % | 80.0 | |
| Glassiness (whole grains) | % | | 2 |
| Predicted spirit yield (PSY) | L/t | 406.0 | |



Château Peated Malt

Phenols 5 ppm

Château Whisky Light[®] Malt

Phenols 15 - 25 ppm

Features: Treated by being smoked during kilning over a fire made from Scottish peat.

Characteristics: Imparts a distinctive smoky, spicy aroma and flavour, typical of classic German beer styles. Smoked beer brewed with Château Peated malt will have a forest wood fire flavor, rich head and a sparkling ale like mouthfeel.

Usage: Scottish ale, porters, smoked beer, special beers

Percentage: Up to 10% of the mix

Also available as organic





| . , | UNIT | MIN | MAX |
|----------------------------------|----------|------|-----------|
| Moisture | % | | 4.5 |
| Extract (dry basis) | % | 81.0 | |
| Extract (difference fine-coarse) | % | 1.0 | 2.5 |
| Wort colour | EBC (°L) | | 3.5 (1.9) |
| Total protein | % | | 11.7 |
| Soluble protein | % | 3.5 | 4.4 |
| Kolbach Index | % | 35.0 | 45.0 |
| Viscosity | сР | | 1.6 |
| Beta-glucans | mg/L | | 250 |
| рН | | 5.6 | 6.0 |
| Diastatic Power | WK | 250 | |
| Friability | % | 80.0 | |
| Glassiness (whole grains) | % | | 2.5 |
| PDMS | | | 5 |
| Filtration time | | no | rmal |
| Saccharification time | min | | 15 |
| Clarity of wort | | cl | lear |
| Calibration - above 2.5 mm | % | 90.0 | |
| Calibration - rejected | % | | 2 |
| Phenols | ppm | 5 | 10 |

Features: Our Château Whisky Light® malt is smoked during kilning with the best Scottish peat. Whisky malts have a longer storage life.

Characteristics: Imparts a delicate character of peat and smoke. An ideal ingredient in a very special whisky recipe. In higher proportions gives your whisky a rich smoky and peaty flavour.

Usage: Any type of whisky for the distinct smoky flavour of genuine Scotch whisky.

Percentage: Up to 100% of the mix

Also available as organic



| PARAMETER | UNIT | MIN | MAX |
|--------------------------------------|----------|-----------|---------|
| Moisture | % | | 4.5 |
| Extract (dry basis) | % | 80.0 | |
| Extract (difference fine- coarse) | % | | 2.0 |
| Wort colour | EBC (°L) | 2.5 (1.5) | 4 (2.1) |
| Total protein | % | 11. | .5 |
| Soluble protein | % | 3.5 | 4.4 |
| Kolbach Index | % | 35.0 | 45.0 |
| Friability | % | 80.0 | |
| Glassiness (whole grains) | % | | 2.5 |
| Saccharification time | Minutes | | 15 |
| Homogeneity | % | 90.0 | |
| Predicted spirit yield (PSY) | L/t | 400.0 | |
| Phenols | ppm | 14 | 25 |



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Features: Our Château Whisky® malt is smoked during kilning with the best Scottish peat. Whisky malts have a longer storage life.

Characteristics: Imparts a delicate character of peat and smoke. An ideal ingredient in a very special whisky's recipe. In higher proportions gives your whisky a rich smoky and peaty flavour.

Usage: Any type of whisky for the distinct smoky flavour of genuine Scotch whisky.

Percentage: Up to 100% of the mix

Also available as organic



| PARAMETER | UNIT | MIN | MAX |
|--------------------------------|----------|------|---------|
| Moisture | % | | 4.5 |
| Soluble extract (0.2 mm) | % | 81.0 | |
| Fine-coarse extract difference | % | | 2.0 |
| Wort colour | EBC (°L) | | 4 (2.1) |
| Total protein | % | | 11.5 |
| Soluble protein | % | 3.5 | 4.4 |
| Kolbach Index | % | 35 | 45 |
| Friability | % | 80.0 | |
| Saccharification time | Min | 15 | |
| Predicted spirit yield (PSY) | L/t | 400 | |
| Phenols Château Whisky | ppm | 35 | 40 |

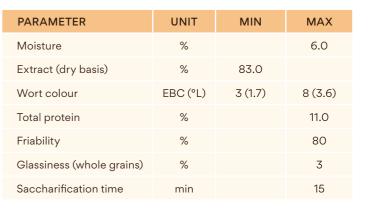
Features: A fully modified dehusked type of malt with high β -Glucan content. It performs well in a single temperature infusion mash.

Characteristics: Gives a golden colour to your beer. This malt imparts a unique touch of rye flavour and adds an interesting complexity, a new twist in many well-known beer styles.

Usage: Rye ales and lagers, special beers, seasonal beers

Percentage: Up to 30% of the mix

Also available as organic





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Whisky beauty and yeast

Castle Malting® provides you with the best dry distilling yeasts in the world



| Whisky & Spirits | Microdistilleries |
|--|--|
| SafSpirit M-1 SafSpirit USW-6 SafSpirit C-70 | SafSpirit M-1 SafSpirit GR-2 SafSpirit USW-6 SafSpirit FD-3 |

| | Rehydration Temperature (°C) | Fermentation Temperature (°C) | Recommended Quantity (g/hl) |
|-----------------|---------------------------------|----------------------------------|--------------------------------|
| SafSpirit M-1 | 25-35 | 20-32 | 50-80 g/hl |
| SafSpirit USW-6 | 25-35 | 20-32 | 30-50 g/hl |
| SafSpirit C-70 | 25-35 | 25-33 | 30-50 g/hl |
| SafSpirit GR-2 | 25-35 | 20-32 | 30-50 g/hl |
| SafSpirit FD-3 | 25-35 | 15-32 | 30-50 g/hl |



The complete range of our yeasts can be found on our website:



Malt Whisky



Description

Whisky with amber color and slightly smoky hints. The taste is rich and complex with a well-rounded flavor, malty and slightly peaty. The finish is long, recalling oak and smoke.

Recipe for 100 L

| MALT | |
|---|-------------------------------|
| Château Whisky® | 14 - 18 kg |
| Château Distilling® Malt | 21 - 27 kg |
| Add Château Distilling®Malt depending on th | ne required level of phenols. |
| YEAST | |
| SafSpirit M-1 | 70 g |

Step 1: Mashing

Mash in 75 liters of water at 65°C Rest at 62°C for 80 minutes Rest at 72°C for 15 minutes

Step 2: Filtration

Separate the wort from the spent grain with water at 78°C

Step 3: Boiling

Duration: 10 minutes

Step 4: Cooling

23 - 24°C

Step 4: Fermentation

28 - 30°C

Step 4: Distillation

This recipe is provided by Castle Malting[®]. Please note that this recipe is just a guideline. Some modifications might be needed to meet different technological requirements, efficiency and yield ratios.

For further information & service please contact us at info@castlemalting.com

Rye Malt Whisky



Description

Featuring round, rich notes of tobacco, charred oak and butter scotch with a spicy rye kick and peppery heat, rye whisky is rounded out by the smoothness of maple and sweet cherry to provide a weighty and balanced, yet complex, flavor profile. It's solidly anchored in rye spiciness with a bit of apple and honey. Rye whisky gives both spiciness and fruity flavors like plum and marmalade.

Recipe for 100 L

| MALT | |
|-----------------|-------|
| Château Whisky® | 25 kg |
| Château Rye® | 6 kg |
| YEAST | |
| SafSpirit M-1 | 70 g |

Step 1: Mashing

Mash in 75 liters of water at 65°C Rest at 63°C for 75 minutes Rest at 72°C for 25 minutes

Step 2: Filtration

Separate the wort from the spent grain with water at 78°C

Step 3: Boiling

Duration: 10 minutes

Step 4: Cooling

22°C

Step 4: Fermentation

Step 4: Distillation

This recipe is provided by Castle Malting®. Please note that this recipe is just a guideline. Some modifications might be needed to meet different technological requirements, efficiency and yield ratios.

For further information & service please contact us at info@castlemalting.com

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Ghlin, Belgium

Storage & shelf life:



Keeping your malt fresh and safe, preserving its unique properties and characteristics is of utmost importance for brewing success. We, Castle Malting®, with our particularly strong commitment to quality, do care about the eventual performance of our malts and we are really happy only when our malts fulfill their extraordinary potential, that is when they become the source of a perfect pint.

We suggest using all whole grain products within 18-24 months from the date of manufacture and all milled products within 3 months if the following recommendations are respected.

WHAT REALLY MATTERS

Temperature

A temperature range from 5 to 22 °C is essential to maintain and preserve your malt's desirable properties and qualities. A higher temperature offers favorable conditions for various unwanted insects, microorganisms and fungi to develop and eventually ruin the malt quality.

Humidity

Malt is hygroscopic. The dryer the storage conditions the better for the malt. Unwanted microorganisms and fungi develop faster under humid conditions. However, keeping your malt in a very cool and dry place and then expose it to a warm humid environment will result in condensation with the consequent deterioration of your malt's quality.

Fresh clean air, ventilation

An absolute must! Your malt will absorb any paint traces, fumes, smoke, chemical substances residuals, food production odours, and other agricultural products' odours. This will have a disastrous effect on your beer. Not letting the malt bags lying directly on the floor or to be in contact with the walls will contribute to better ventilation of your storage facility. The better the ventilation, the cleaner and dryer the air.

Love and care

They do really matter, indeed. Love your malt and take good care of it. Monitor its temperature, humidity and overall condition on a permanent, regular, continual basis. Establish and apply your own detailed handling and storage protocols. Ensure and maintain adequate storing conditions. Your malt will never demonstrate ingratitude. It will reciprocate. It will take proper care of your beer.



Optimal packaging and logistics solutions

Château malts are packed at a rate of 600 bags per hour and stored at our 5 000 sqm distribution center in Ghlin. The dispatch area permits to prepare daily up to 40 orders ready for loading within 24 hours. The facility offers easy access to the trucks and a parking capacity of twenty vehicles, allowing a maximum fluidity of operations. It is situated at only 1 km from the motorway in close proximity to Europe's main transportation arteries.

Château malts and all the other ingredients can be delivered on ExW, FCA, FOB, CPT, CFR, CIF, DAP or other Incoterms basis upon request.

The total quantity per pallet, truck or container may vary depending on the type(s) of malt and container.

"Mixed-pallet" deliveries (several malt types per pallet) and other packaging solutions are possible upon request.

Yeast, hops, spices, caps, candy sugars or other sugar products can be delivered together with your malt order, which means without any additional freight cost!

For crushed malt, the malt quantity per pallet is maximum 750 - 800 kg.

| Malt packaging solutions for sea and intercontinental deliveries | Quantity per 20-foot container | Quantity per 40-foot container |
|--|-----------------------------------|-----------------------------------|
| Bulk in liner bag in container | up to 17 000 kg | up to 26 500 kg |
| In 25 kg bags loose in container | up to 17 000 kg | up to 26 500 kg |
| In 50 kg bags loose in container | up to 17 000 kg | up to 26 500 kg |
| In 25 kg bags on export pallets 110x110 cm (of up to 1 300 kg each) in container | up to 13 000 kg | up to 26 000 kg |
| In Big Bags of 400 - 1300 kg on export pallets 110x110 cm in container | up to 13 000 kg | up to 26 000 kg |

| Malt packaging solutions for intracontinental deliveries | Approximate quantity per truck |
|---|--------------------------------|
| Bulk in trucks / pulverulent tank trucks | Up to 25 000 kg |
| In 25 kg bags on exchangeable euro pallets 80x120 cm (825kg each) in trucks | Up to 24 000 kg |
| In 25 kg bags on pallets 110x110 cm (of up to 1 300 kg each) in trucks | Up to 24 000 kg |
| In Big Bags of 400 - 1300 kg on pallets 110x110 cm in trucks | Up to 24 000 kg |



