

**Keep your new  
ideas brewing.**

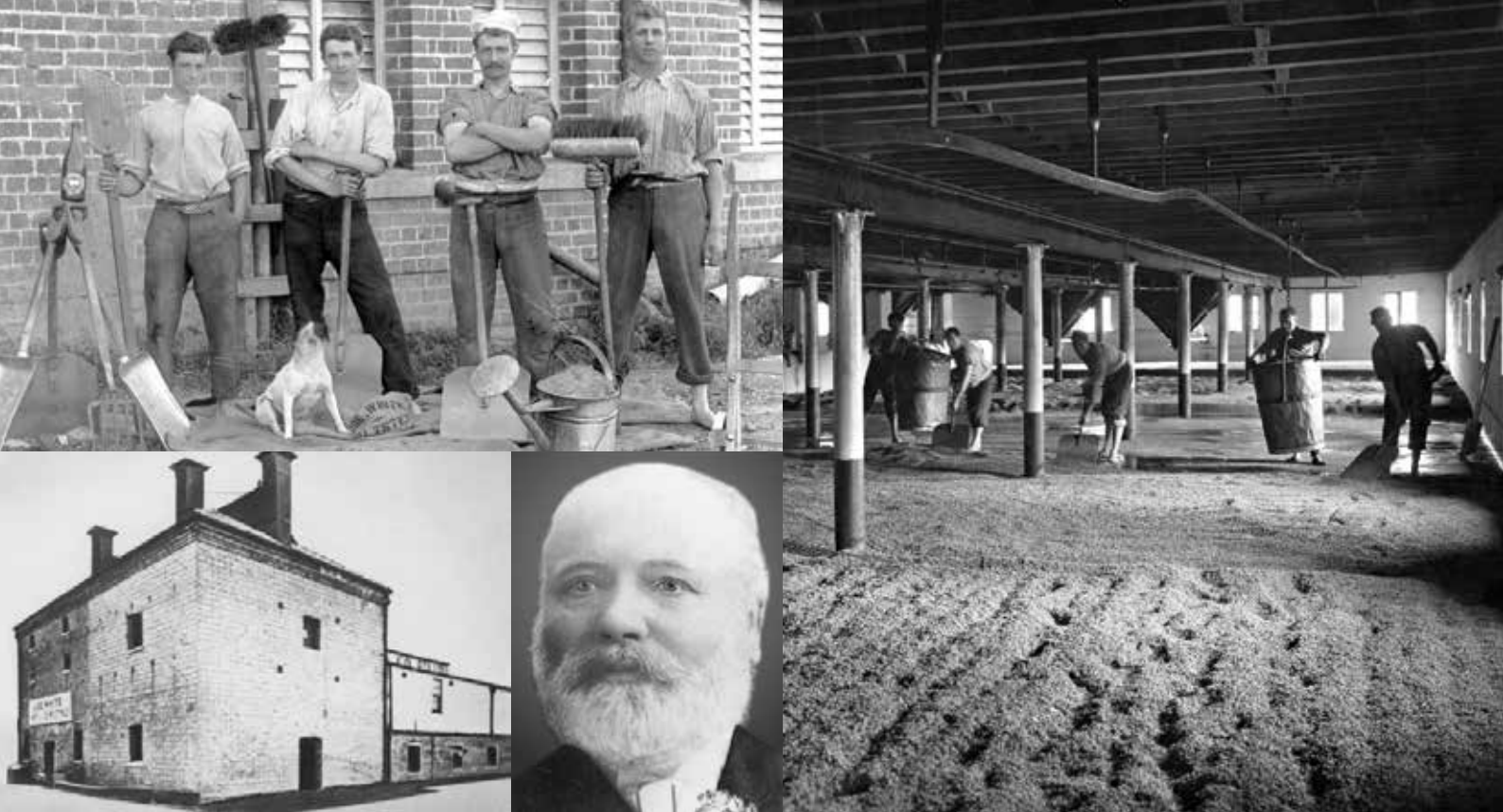


**Joe White Maltings**  
Product Catalogue



**JOE WHITE**  
MALTINGS





# Our History

The early settlers of our sunburnt land had to rely on the timeliness of the sailing ships from the mother country for their favourite tippie. For the confirmed beer drinker this was a desperate state of affairs, relying on fair sailing conditions to quench their thirst.

With the discovery of gold in Victoria in the early 1850s there was a sudden influx of people seeking their fortune. The population of towns like Ballarat swelled dramatically during this period. Hard working gold miners had a thirst for good ale and plenty of it! This provided the impetus for development of the Australian brewing industry.

Joe White, his family and colleagues quickly saw the opportunity to improve beer quality by providing malt of the highest standard made from locally grown barley.

Joe White's father, Alexander, who was a trained maltster, joined forces with Henry Cane who had been malting in Ballarat since 1858. By 1896, Joe White had taken over the business and two years later a new malthouse was constructed on Gregory Street in Ballarat. From these humble beginnings, Joe White Maltings played a key role in providing quality malt to the emerging brewing industry to become Australia's largest malt producer and part of the global network of Cargill Malt plants.

In addition to the Pilsener malt required for the burgeoning south-east Asia region, Joe White Maltings also reflects its historical roots by manufacturing a range of coloured and specialty malts. This tradition began when the company installed its first roaster at their Collingwood malthouse in 1926. Today, the Specialty Product Centre, with its state of the art Barth roasters, is located in Ballarat which is the spiritual home of Joe White Maltings – a reminder for all in our company of the historical association of Joe White and great beer!

**“From the barley field to the brewing kettle, Cargill supports customers in all aspects towards successfully brewing great beer.”**





# Our Ingredients

We are committed to helping you create your best beer and spirits. Whether you want to enhance your existing product range or launch a new product, we have the ingredients and know-how to help you thrive. As an international producer and marketer to the brewing and distilling industry, Joe White Maltings helps customers succeed through collaboration and innovation, and we devote ourselves to sharing this knowledge and experience to help you reach your goals.

## WHY CHOOSE OUR INGREDIENTS

The best malt comes from the best barley. With six plants across five states, Joe White Maltings' plants are ideally positioned to access Australia's premium barley growing areas, ensuring the delivery of high quality malt to our brewing and distilling customers.

Tradition and experience are the cornerstones in the production of high quality, customer specific base, roasted and specialty malts. The Joe White Maltings Specialty Malt Product Centre at our Delacombe malthouse in Ballarat focuses on producing a range of roasted products ranging from lighter coloured amber malt, to the full spectrum of crystal malts and heavily roasted grain and malts.

Whether you want to enhance your existing product range or add more contemporary beer or whiskey styles to your portfolio, we have the ingredients, know-how and passion to help you stand out from the pack.



## SUSTAINABILITY

Cargill commits itself to rigorous continuous improvement processes around efficiency, sustainability and safety.

We promote sustainable and responsible economic development by sharing our global knowledge and expertise.

We encourage initiatives that improve our footprint and have a meaningful impact on our environment, workplace safety, food safety, enriched communities and diversity.

We work with our partners to promote responsible agricultural practices, conserve resources, use renewable raw materials and reduce our environmental impact.

We know that our impact on the world begins with our actions as individuals. When you choose Cargill, you know you are working with dedicated and passionate individuals who go above and beyond to do the right thing and help our partners *thrive*.

# Our Locations

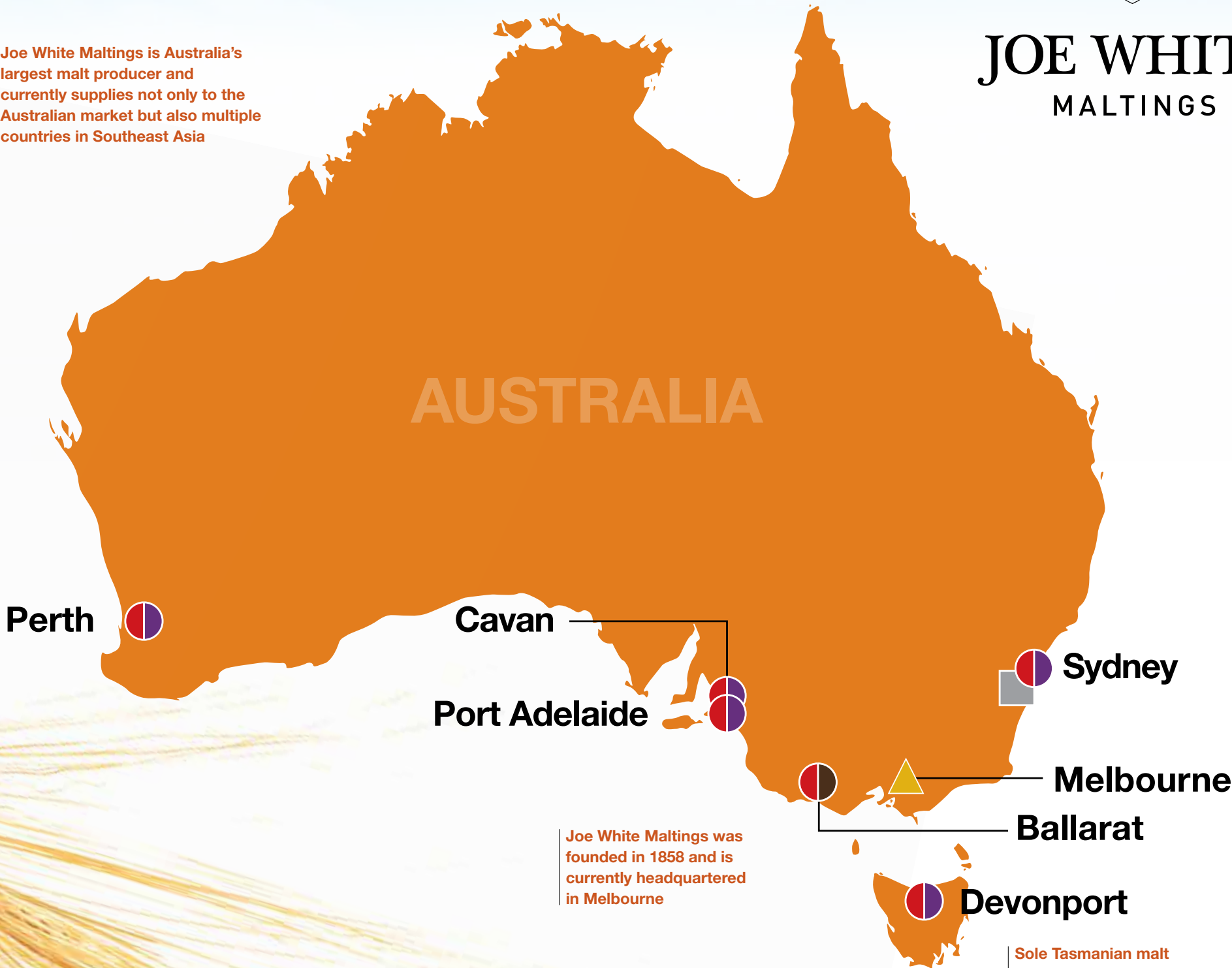
We're committed to offering you world-class malt. By strengthening our network of production and sourcing, we're ready to grow with you as your business expands.



JOE WHITE  
MALTINGS

Joe White Maltings is Australia's largest malt producer and currently supplies not only to the Australian market but also multiple countries in Southeast Asia

With six plants across five states, Joe White Maltings is ideally positioned to access Australia's premium barley growing areas, ensuring the delivery of high quality malt to our brewing and distilling customers



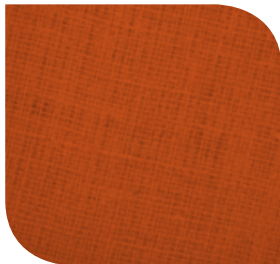
## MAP KEY

- Malting Plant
- Malting Plant and Export Site
- Specialty Malt Product Centre
- ▲ Regional Headquarters
- Technical Center



# Our Malt

Joe White Maltings has been malting in Ballarat since 1858. Recently we commissioned a new roaster which allows us to take all the experience and learning from the past 160 years to provide a wide selection of roasted and specialty malts. Our focus is on a core range of quality products designed to best serve your brands.



## Base Malts

### Two-Row Australian Barley

**Pale Malt**  
Base malts provide the sugars for fermentation and enzymes for converting the starch to sugars during mashing, as well as adding unique character and flavour.

A light golden colour and smooth clean flavour make this malt a perfect base for any brew, but particularly Pale Ales, Pilseners and I&APAs.

<b>EBC</b> 3.0–4.0	<b>°L</b> 1.7–2.1	<b>IDEAL FOR:</b> All beer styles
-----------------------	----------------------	--------------------------------------

**Ale Malt**  
Kilning at a slightly higher temperature than Pale Malt results in a slightly darker colour and fuller flavoured base malt, typically found in traditional English Ales.

<b>EBC</b> 5.0–7.0	<b>°L</b> 2.4–3.2	<b>IDEAL FOR:</b> All beer styles
-----------------------	----------------------	--------------------------------------

**Vienna Malt**  
Kilned at a higher temperature than Pale and Ale malts but still retaining sufficient enzyme activity to be used as a base malt, Vienna imparts a light golden to orange colour and a distinctive nutty aroma.

<b>EBC</b> 5.0–10.0	<b>°L</b> 2.4–4.3	<b>IDEAL FOR:</b> Vienna Lager, Märzen, Dunkelweizen and Bock
------------------------	----------------------	--

**Light Munich Malt**  
Munich provides a more robust, malty flavour and rich golden colour than Vienna, adding depth and body without excessive sweetness.

<b>EBC</b> 10.0–15.0	<b>°L</b> 4.3–6.2	<b>IDEAL FOR:</b> Dark lagers, Bock and Oktoberfest
-------------------------	----------------------	--

**Dark Munich Malt**  
Munich provides a more robust, malty flavour and rich golden colour than Vienna, adding depth and body without excessive sweetness.

<b>EBC</b> 15.0–20.0	<b>°L</b> 6.2–8.1	<b>IDEAL FOR:</b> Dark lagers, Bock and Oktoberfest
-------------------------	----------------------	--

### Wheat

**Wheat Malt**  
Premium White Wheat is malted in the same way as barley and is used as a base malt in the production of classic wheat beers. At lower percentages of the grist, wheat malt can also be added to any number of beer styles to enhance foam stability and mouthfeel.

<b>EBC</b> 3.5–5.0	<b>°L</b> 1.9–2.4	<b>IDEAL FOR:</b> Weissbier, Witbier, Lambic, Berliner Weisse and Gose
-----------------------	----------------------	---

### Distillers

**Cargill Distillers**  
Our distillers malt is specifically designed to provide the distiller of whiskeys or spirits requiring a majority of raw grains with enough enzyme to convert the large amount of starch in those grain bills.

<b>°L</b> 2.0–6.5	<b>IDEAL FOR:</b> Whiskey and spirits
----------------------	--

“We help breweries and distilleries of all sizes create distinctive, and innovative styles with our wide assortment of malt.”





# Kilned Caramel Malts



## Kilned Caramel Malt

!!! **Caramalt**  
The lightest of the crystal malts with its brilliant golden colour, Caramalt is valued for its full caramel flavour. Caramalt is made from green malt, but is roasted at lower temperatures and for a shorter time than typical Crystal Malt.

EBC	°L	IDEAL FOR:
40–70	15.6–26.8	Any type of beer, from golden lagers to darker ales

# Crystal Malts

## Crystal Malts

!!! **Light Crystal Malt**  
With colour varying from a light, honey shade to a deep gold depending on the length of the final roasting stage, Joe White Maltings' Light Crystal Malt provides sweet caramel and toffee flavours as well as contributing to body, foam stability and storage capabilities of beer.

EBC	°L	IDEAL FOR:
100–140	38.1–53.1	Any type of beer, from golden lagers to darker ales

!!! **Medium Crystal Malt**  
With colour varying from a light, honey shade to a deep gold depending on the length of the final roasting stage, Joe White Maltings' Medium Crystal Malt provides sweet caramel and toffee flavours as well as contributing to body, foam stability and storage capabilities of beer.

EBC	°L	IDEAL FOR:
140–160	53.1–60.6	Any type of beer, from golden lagers to darker ales

!!! **Dark Crystal Malt**  
With colour varying from a light, honey shade to a deep gold depending on the length of the final roasting stage, Joe White Maltings' Dark Crystal Malt provides sweet caramel and toffee flavours as well as contributing to body, foam stability and storage capabilities of beer.

EBC	°L	IDEAL FOR:
200–250	75.6–94.3	Any type of beer, from golden lagers to darker ales

!!! **Extra Dark Crystal Malt**  
With colour varying from a light, honey shade to a deep gold depending on the length of the final roasting stage, Joe White Maltings' Extra Dark Crystal Malt provides sweet caramel and toffee flavours as well as contributing to body, foam stability and storage capabilities of beer.

EBC	°L	IDEAL FOR:
250–300	94.3–113.1	Any type of beer, from golden lagers to darker ales



# Roasted Malts, Grains & Other



## Roasted Malts & Grains



### Amber Malt

The lightest of the roasted malts, with a biscuity flavour and a subtle ochre colour.

EBC	°L	IDEAL FOR:
40–70	15.6–26.8	Any type of beer, from golden lagers to darker ales



### Chocolate Malt

Chocolate Malt is a lightly roasted product with subtle notes of coffee, cocoa and chocolate and a rich brown colour.

EBC	°L	IDEAL FOR:
500–800	188.1–300.6	Any type of beer, from golden lagers to darker ales



### Light Roast Malt

Roasted malts have varying colour and flavour profiles depending on the temperature and length of the final roasting stage, but will generally impart a smooth roasted flavour without excessive bitterness. Roasted malts can be used in dark beers for flavour or used in small quantities in all styles for colour correction.

EBC	°L	IDEAL FOR:
800–1000	300.6–375.6	Dark ales, stouts and bocks



### Dark Roast Malt

Roasted malts have varying colour and flavour profiles depending on the temperature and length of the final roasting stage, but will generally impart a smooth roasted flavour without excessive bitterness. Roasted malts can be used in dark beers for flavour or used in small quantities in all styles for colour correction.

EBC	°L	IDEAL FOR:
1200–1400	450.6–525.6	Dark ales, stouts and bocks



### Black Malt

The darkest of the roast products, providing a deep brown-black colour, Black Malt has a mild aroma while still providing a dry, bitter, burnt-coffee flavour.

EBC	°L	IDEAL FOR:
1400–1600	525.6–600.6	Dark ales, stouts and bocks



### Roasted Barley

Roasted barley provides a beautiful rich red-black colour and a slightly sweeter, less astringent flavour than Black Malt.

EBC	°L	IDEAL FOR:
1200–1600	450.6–600.6	Dark ales, stouts and porters



### Roasted Wheat Malt

With a milder flavour than both Black Malt and Roasted Barley, Roasted Wheat Malt is used mainly for colouring and improving the body of dark beers.

EBC	°L	IDEAL FOR:
1200–1600	450.6–600.6	Stouts

## Other



### Raw Wheat

Raw wheat produces beers less sweet and full bodied than those made with malted wheat, making it an excellent choice for more crisp and refreshing styles. Higher protein levels of wheat greatly enhance its contribution to foam stability and increase the beer's mouthfeel.

**SPECIFICATIONS**  
Available upon request

### PILOT FACILITIES

Cargill operates micro-malting and pilot brewing facilities – ideal for your small-scale brewing and process replication trials with variable ingredients.

“From a chocolate hue and nutty flavour to a rich black colour and a bitter burnt-coffee taste, you can make your dark specialty beers a sensory joy with our portfolio of roasted malts, roasted barley and roasted wheat.”







## Malt Analysis

Malt Style / Name	EBC	°L	H <sub>2</sub> O Max.	Protein %		Extract % Fine, Dry, Min.	DP WK Min.	AAL % Range	WBG mg/1 Max	Friability %	Assortment %	
				Total Range	Sol. Kolbach Range						>2.5mm Min.	<2.2mm Max.

### Base Malts

#### Two-Row Australian Barley

Pale Malt	3.0-4.0	1.7-2.1	4.5	9.0-11.5	- 40.0-46.0	80.0	200	79.0-83.0	180	80.0	90.0	1.5
Ale Malt	5.0-7.0	2.4-3.2	4.5	9.0-11.5	- 40.0-46.0	80.0	200	79.0-83.0	180	80.0	90.0	1.5
Vienna Malt	5.0-10.0	2.4-4.3	5.0	9.0-11.5	- 40.0-48.0	78.0	150	-	-	80.0	90.0	2.0
Light Munich Malt	10.0-15.0	4.3-6.2	5.0	9.0-11.5	- 40.0-48.0	78.0	150	-	-	80.0	90.0	2.0
Dark Munich Malt	15.0-20.0	6.2-8.1	5.0	9.0-11.5	- 40.0-48.0	78.0	150	-	-	80.0	90.0	2.0

#### Wheat

Wheat Malt	3.5-5.0	1.9-2.4	5.5	13 Max	- 40.0-45.0	81.0	280	-	-	-	-	-
------------	---------	---------	-----	--------	-------------	------	-----	---	---	---	---	---

#### Distillers

Cargill Distillers	-	-	5.0	9.0-11.5	- 40.0-46.0	80.5	250	-	-	85.0	-	-
--------------------	---	---	-----	----------	-------------	------	-----	---	---	------	---	---

### Kilned Caramel Malts

#### Caramel Malts

Caramalt	40-70	15.6-26.8	7.0	-	- -	75.0	-	-	-	-	-	-
----------	-------	-----------	-----	---	-----	------	---	---	---	---	---	---

### Crystal Malts

#### Crystal Malts

Light Crystal Malt	100-140	38.1-53.1	5.0	-	- -	75.0	-	-	-	-	-	-
Medium Crystal Malt	140-160	53.1-60.6	5.0	-	- -	75.0	-	-	-	-	-	-
Dark Crystal Malt	200-250	75.6-94.3	5.0	-	- -	75.0	-	-	-	-	-	-
Extra Dark Crystal Malt	250-300	94.3-113.1	5.0	-	- -	75.0	-	-	-	-	-	-

### Roasted Malts, Grains & Other

#### Roasted Malts & Grains

Amber Malt	40-70	15.6-26.8	5.5	12 Max	- -	72.0	-	-	-	-	-	-
Chocolate Malt	500-800	188.1-300.6	5.0	12 Max	- -	72.0	-	-	-	-	-	-
Light Roast Malt	800-1000	300.6-375.6	4.5	12 Max	- -	72.0	-	-	-	-	-	-
Dark Roast Malt	1200-1400	450.6-525.6	4.5	12 Max	- -	72.0	-	-	-	-	-	-
Black Malt	1400-1600	525.6-600.6	4.5	12 Max	- -	72.0	-	-	-	-	-	-
Roasted Barley	1200-1600	450.6-600.6	4.0	-	- -	65.0	-	-	-	-	-	-
Roasted Wheat Malt	1200-1600	450.6-600.6	4.0	-	- -	65.0	-	-	-	-	-	-

#### Other

Raw Wheat	-	-	-	-	- -	-	-	-	-	-	-	-
-----------	---	---	---	---	-----	---	---	---	---	---	---	---





# Partnering to deliver malts to the world in a safe, responsible and sustainable way



**Cargill Malt Asia Pacific Pty. Ltd.**  
Level 11  
Twenty8 Freshwater Place  
Southbank VIC 3006  
Australia

+61 39268 7200 Phone  
MaltAP\_Customerservice@cargill.com



**JOE WHITE**  
MALTINGS

All statements, recommendations or suggestions are made without guarantee, express or implied, and are subject to change without notice. We disclaim all warranties, express or implied, including any warranties of merchantability, fitness for a particular purpose and freedom from infringement and regulatory compliance and disclaim all liability in connection with the use of the product or information contained herein. All rights reserved. Cargill brands are trademarks of Cargill Incorporated and/or related companies. These trademarks are registered in one or more countries, but may not be registered in all countries. This information is presented in good faith for consideration, investigation and verification. Whilst care has been taken to ensure accuracy, legal liability is excluded to the extent legally permitted. No freedom from patent is implied. ACCURACY, LEGAL LIABILITY IS EXCLUDED TO THE EXTENT LEGALLY PERMITTED. NO FREEDOM FROM PATENT IS IMPLIED.

© Cargill, Incorporated. All rights reserved.