

CATALOGUE



# JOE WHITE MALTINGS

18  
58





**The first boom of the Australian brewing industry coincided with Victoria’s gold rush in the early 1850s. Previously quiet regional centers saw a sudden influx of miners; towns such as Ballarat were awash with men with a thirst for good fortune, and for good ale.**

The ale on the other hand, was not of the high quality we associate with the brewing industry of today. Brewers relied on the timelines of sailing ships carrying malt from the other side of the globe. Joe White, his family and colleagues, witnessed this desperate state of affairs and set in motion to provide a local alternative.

Joe White’s father, Alexander, who was a trained maltster, joined forces with Henry Cane, who had been malting in Ballarat since 1858. Under Alexander’s watch, at the age of 19, Joe paid his dues at the malthouse.



Like all new employees he would sweep the floors, feed the hoppers, operate the revolving screens, filled, sewed up, and carried the four and a half bushel bags. Only 4 years into training in 1892, at just 23 years old, Joe had to step up and take over the reins of the business. He thrived as a leader, and two years later, a new malthouse stood proudly on Gregory Street in Ballarat.

Joe White Maltings’ experience and expertise with manufacturing coloured and specialty malts stretches back almost 100 years. The company’s first roaster was installed in Collingwood in 1926 and the Joe White maltsters have not looked back since. Their wealth of knowledge lives on in the Specialty Malt Plant, with its state of the art roasters in Joe White Maltings’ spiritual home of Ballarat. It serves today’s brewers and distillers as they create new and innovative products, and stands as a proud reminder of Joe White Maltings’ key role in the development of truly great Australian beer.







# FROM BARLEY FIELD TO THE BREWING KETTLE

## 7 plants across 5 states.

Harvested from barley belts across the length and breadth of the country, Joe White Maltings selects the finest sun drenched Australian grains, before passing the plump kernels into the hands of our expert maltsters.

Joe White Maltings' plants are ideally positioned to access Australia's premium barley growing areas, ensuring the delivery of high quality malt. From humble family beginnings in the Australian brewing industry's infancy, Joe White Maltings is now Australia's largest Malt producer, serving breweries on home soil and abroad.

### We are determined to make a difference.



Working with farmers on sustainable barley farming: target 100% SAI (Sustainable Agriculture Initiative, or equivalent) certified Barley.



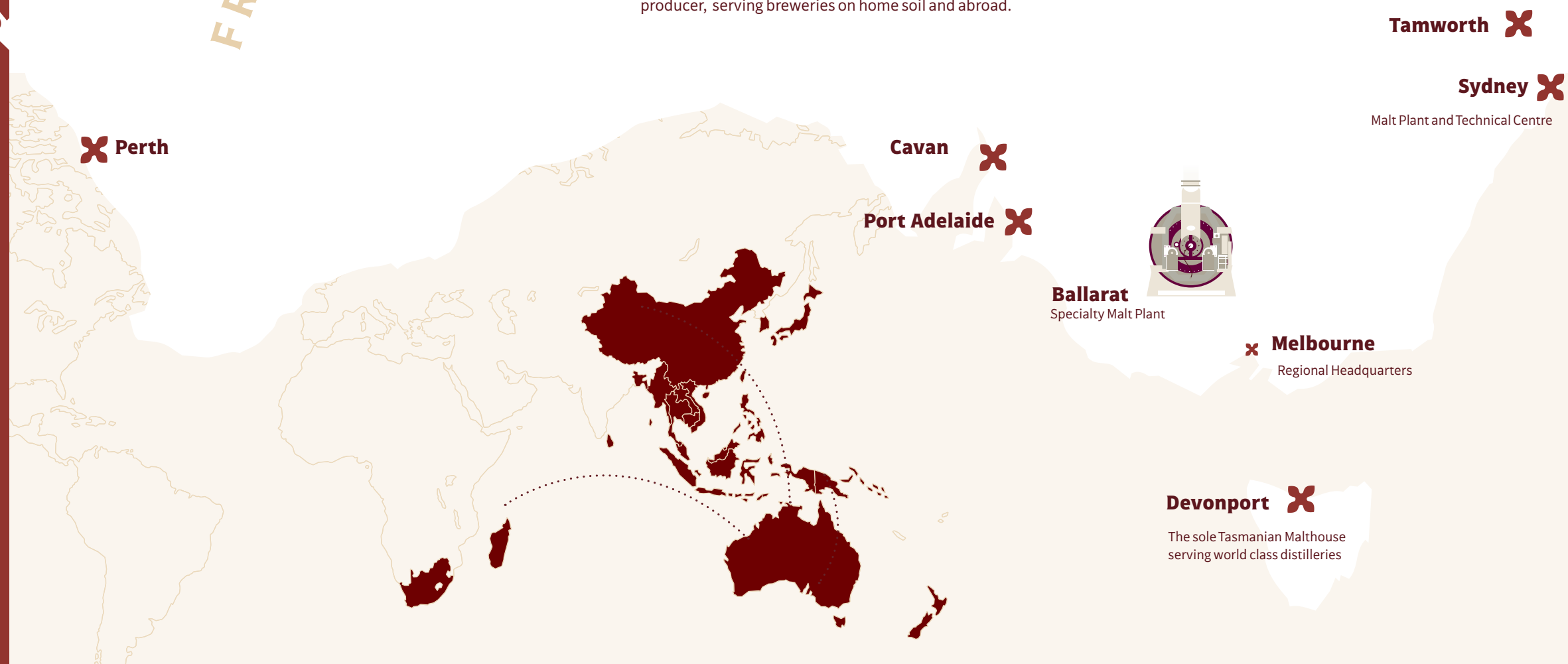
Water consumption at our sites: 50% reduction of our freshwater consumption between 2010 and 2025.



Carbon footprint of our plants: target 60% reduction between 2010 and 2030.

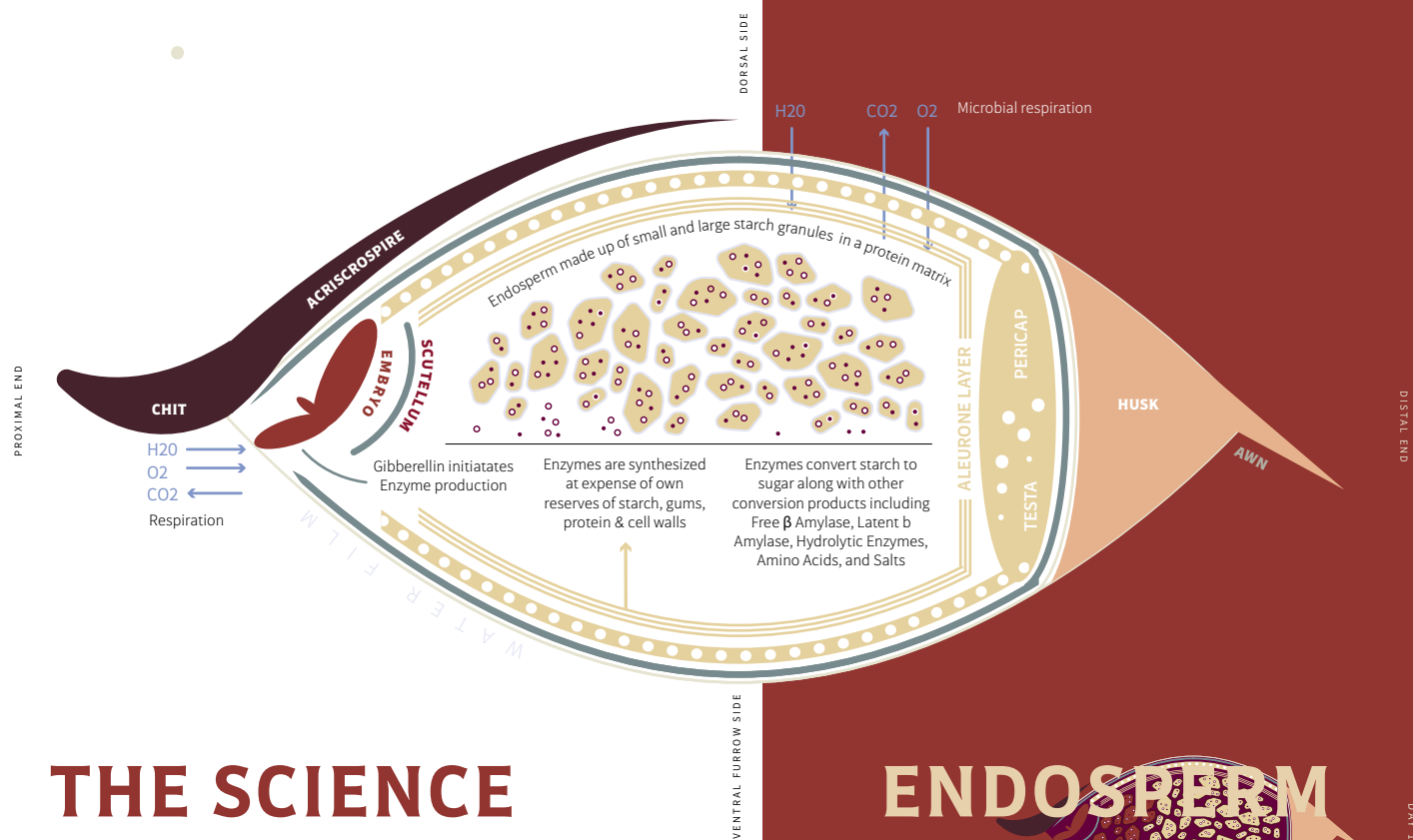


Health and safety for our employees and those people working at, or visiting our sites: drive to 0 incidents.





# GERMINATION



# ENDOSPERM MODIFICATION



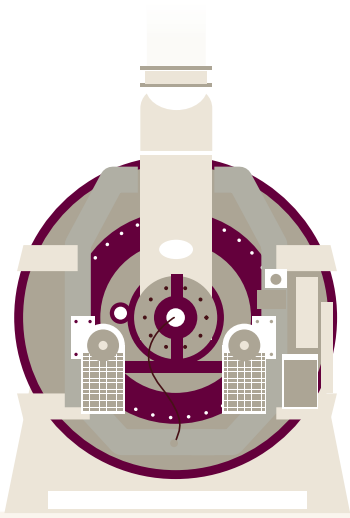
# THE SCIENCE OF MALT

Barley is a principal source of carbohydrates and amino acids, its energy stored as starch encased in a protein matrix in the endosperm. The malting process is initiated by steeping or immersing the cleaned barley kernels in water. The hydration will stimulate the embryo into growth and activate the enzymes needed to modify the endosperm.

The second step of the malting process is germination, where the grain undergoes modification. Proteolytic enzymes (proteases) are formed and activated to break down the protein matrix of cellular walls. This then provides a pathway for the starch degrading enzymes (amylases) that have developed during germination, to convert the starch into fermentable sugars in the mash tun later on in the brewing process.

The final stage of malting is kilning, which has 3 functions. The heat halts germination and promotes the Maillard reaction between amino acids and sugars, producing colour and flavour. Kilning also reduces moisture from 42% to 4-5% whilst preserving essential enzymes for the brewing process. The result is a friable malt that can then be safely stored and readily milled by the brewer.

## BASE MALTS



## CRYSTAL

“Green Malt”, taken moist directly out of germination, is heated in the roaster, where the endosperm liquefies into a sugary solution and crystallizes during kilning to a glassy sugar. The Maillard reaction that takes place in this process gives it the specific caramel flavours.

The malt is then cleaned which includes deculming, grading, and aspiration. Once the malt is analysed, it’s packed and dispatched to Joe White customers.

## ROASTED

Kilned malts are roasted until they reach the desired colour and flavour profile.

# SPECIALTY PLANT

Joe White Specialty Malt Plant in Ballarat is Australia’s only dedicated specialty plant. Its focus is a range of roasted products ranging from lighter coloured amber malt, to the full spectrum of crystal malts and heavily roasted grain and malts.





# BASE MALTS

## TWO-ROW AUSTRALIAN BARLEY

|                      |   | EBC       | IDEAL FOR                                   |
|----------------------|---|-----------|---|
| Pilsner 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, Pilsners and IPA's. | 3.0-4.0   | All beer styles                             |
| Traditional Ale Malt | Kilning at a slightly higher temperature than Pilsner Malt results in a slightly darker colour and fuller flavoured base malt, typically found in traditional English Ales.   | 5.0-7.0   |   |
| Vienna Malt          | Kilned at a higher temperature than Pilsner 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.   | 5.0-10.0  | 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.   | 10.0-15.0 | Dark lagers, Bock and Oktoberfest           |
| Dark Munich Malt     |   | 15.0-20.0 |   |

## 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. | 3.5-5.0 | Weissbier, Witbier, Lambic, Berliner Weisse and Gose |
|------------|--|---------|--|

## DISTILLERS

|                 |   |         |                    |
|-----------------|---|---------|--------------------|
| Distillers Malt | Our distillers malt is specifically designed to provide the distiller of whiskies or spirits requiring a majority of raw grains with enough enzymes to convert the large amount of starch in those grain bills. | 5.0 Max | Whisky and spirits |
|-----------------|---|---------|--------------------|



Whether it's enhancing existing beer ranges, assisting with contemporary whisky styles or creating new products to launch, we have the malts and know-how to help producers create stand out beer and spirits.

**JOE WHITE MALTS ARE AVAILABLE IN 25KG BAGS, BULK BAGS, AND IN BULK. TO PLACE AN ORDER OR DISCUSS YOUR MALT REQUIREMENTS, PLEASE CONTACT YOUR JOE WHITE MALTINGS DISTRIBUTOR.**

# SPECIALTY MALTS

## CRYSTAL MALTS

|                         |   | EBC     | IDEAL FOR   |
|-------------------------|---|---------|---|
| 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.                                   | 40-70   | Any type of beer, from golden lagers to darker ales |
| Light Crystal Malt      |   | 100-140 |   |
| 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' Crystal Malt provides sweet caramel and toffee flavours as well as contributing to body, foam stability and storage capabilities of beer. | 140-160 |   |
| Dark Crystal Malt       |   | 250-300 |   |
| Extra Dark Crystal Malt |   | 350-450 |   |
| Crystal Wheat Malt      | Producing beautiful dark golden tones, Crystal Wheat Malt provides a smooth nutty profile with mild notes of caramel and biscuit. Used to enhance foam retention and mouthfeel while providing a clean finish to any beer.  | 100-150 |   |

## ROASTED MALTS

|                    |   |           |   |
|--------------------|---|-----------|---|
| Amber Malt         | The lightest of the roasted malts, with a biscuity flavour and a subtle ochre colour.   | 40-70     | 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.   | 500-800   |   |
| Light Roasted 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. | 800-1000  | Dark ales, stouts and bocks                         |
| Dark Roasted Malt  |   | 1200-1400 |   |
| 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.  | 1400-1600 |   |
| 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.  | 1200-1600 | Stouts  |

## ROASTED GRAINS

|                |   |           |                               |
|----------------|---|-----------|-------------------------------|
| Roasted Barley | Roasted barley provides a beautiful rich red-black colour and a slightly more astringent flavour than Black Malt. | 1200-1600 | Dark ales, stouts and porters |
|----------------|---|-----------|-------------------------------|

## 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. | - | - |
|-----------|---|---|---|





ANALYSIS

| EBC   | H2O  | PROTEIN %   |               | EXTRACT %       | DP WK | AAL % | WBG MG/L | FRIABILITY | ASSORTMENT  |             |
|-------|------|-------------|---------------|-----------------|-------|-------|----------|------------|-------------|-------------|
| Range | Max. | Total Range | Kolbach Range | Fine, Dry, Min. | Min.  | Range | Max.     | % Min.     | >2.5mm Min. | <2.2mm Max. |

TWO-ROW AUSTRALIAN BARLEY

|                      |           |     |          |           |      |     |           |     |      |      |     |
|----------------------|-----------|-----|----------|-----------|------|-----|-----------|-----|------|------|-----|
| Pilsner Malt         | 3.0-4.0   | 4.5 | 9.0-11.5 | 40.0-46.0 | 80.0 | 200 | 78.0-84.0 | 180 | 80.0 | 90.0 | 2.0 |
| Traditional Ale Malt | 5.0-7.0   | 4.5 | 9.0-11.5 | 42.0-48.0 | 80.0 | 200 | 78.0-84.0 | 180 | 80.0 | 90.0 | 2.0 |
| Vienna Malt          | 5.0-10.0  | 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 | 4.5 | 9.0-11.5 | 44.0-52.0 | 78.0 | 150 | -         | -   | 80.0 | 90.0 | 2.0 |
| Dark Munich Malt     | 15.0-20.0 | 4.5 | 9.0-11.5 | 44.0-52.0 | 78.0 | 150 | -         | -   | 80.0 | 90.0 | 2.0 |

WHEAT

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

DISTILLERS

|                 |         |     |          |          |      |     |          |  |      |  |  |
|-----------------|---------|-----|----------|----------|------|-----|----------|--|------|--|--|
| Distillers Malt | 5.0 Max | 5.0 | 9.0-11.5 | 42.0 Min | 81.0 | 250 | 80.0 Min |  | 83.0 |  |  |
|-----------------|---------|-----|----------|----------|------|-----|----------|--|------|--|--|

CRYSTAL MALTS

|                         |         |     |   |   |      |   |   |   |
|-------------------------|---------|-----|---|---|------|---|---|---|
| Caramalt                | 40-70   | 7.0 | - | - | 75.0 | - | - | - |
| Light Crystal Malt      | 100-140 | 5.5 | - | - | 75.0 | - | - | - |
| Medium Crystal Malt     | 140-160 | 5.5 | - | - | 75.0 | - | - | - |
| Dark Crystal Malt       | 250-300 | 5.5 | - | - | 75.0 | - | - | - |
| Extra Dark Crystal Malt | 350-450 | 5.5 | - | - | 75.0 | - | - | - |
| Crystal Wheat Malt      | 100-150 | 5.5 | - | - | 75.0 | - | - | - |

ROASTED MALTS

|                    |           |     |   |   |      |   |   |   |
|--------------------|-----------|-----|---|---|------|---|---|---|
| Amber Malt         | 40-70     | 5.5 | - | - | 72.0 | - | - | - |
| Chocolate Malt     | 500-800   | 5.0 | - | - | 72.0 | - | - | - |
| Light Roasted Malt | 800-1000  | 4.5 | - | - | 72.0 | - | - | - |
| Dark Roasted Malt  | 1200-1400 | 4.5 | - | - | 72.0 | - | - | - |
| Black Malt         | 1400-1600 | 4.5 | - | - | 72.0 | - | - | - |
| Roasted Wheat Malt | 1200-1600 | 4.0 | - | - | 65.0 | - | - | - |

ROASTED GRAINS

|                |           |     |   |   |      |   |   |   |
|----------------|-----------|-----|---|---|------|---|---|---|
| Roasted Barley | 1200-1600 | 4.0 | - | - | 65.0 | - | - | - |
|----------------|-----------|-----|---|---|------|---|---|---|

OTHER

|           |                               |  |  |  |  |  |  |  |  |  |
|-----------|-------------------------------|--|--|--|--|--|--|--|--|--|
| Raw Wheat | Specs available upon request. |  |  |  |  |  |  |  |  |  |
|-----------|-------------------------------|--|--|--|--|--|--|--|--|--|



SINGLE SOURCE SIGNATURE RANGE OF BASE MALTS  
AVAILABLE FOR THE AUSTRALIAN BREWERS AND DISTILLERS.  
TO PLACE AN ORDER OR DISCUSS YOUR MALT REQUIREMENTS,  
PLEASE CONTACT YOUR JOE WHITE MALTINGS DISTRIBUTOR.

Joe



BASE MALTS

SPECIALTY MALTS





**JOE WHITE  
MALTINGS**

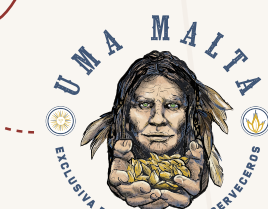


## OUR FAMILY OF LOCAL MALTHOUSES



**JOE WHITE  
MALTINGS**

AUSTRALIA



ARGENTINA



FRANCE



IRELAND



UNITED KINGDOM



BELGIUM



CROATIA



# CONTACTS



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MALTINGS**

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## **Les Maltiers**

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