

## 2# Mandarin Pale Ale

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- Gravity **11.9 BLG**
- ABV ---
- IBU **19**
- SRM **5.9**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **65 min**
- Evaporation rate **15 %/h**
- Boil size **25.6 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **0 min** at **76C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **25.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.8 kg (95%)	85 %	7
Grain	Carahell	0.2 kg (5%)	77 %	26

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Kent Goldings	20 g	60 min	5.5 %
Boil	Fuggles	20 g	15 min	4.5 %
Boil	Fuggles	10 g	5 min	4.5 %
Dry Hop	Mandarina Bavaria	30 g	14 day(s)	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale