

## 3 C'S Pale Ale

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **36**
- SRM **6.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.7 liter(s)**
- Total mash volume **11.6 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **8.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **9.4 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) US	2.4 kg (82.8%)	79 %	4
Grain	Bruntal Monachijski	0.3 kg (10.3%)	80 %	16
Grain	Caramunich® typ I	0.2 kg (6.9%)	73 %	80

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	10 g	60 min	10.5 %
Whirlpool	Centennial	10 g	20 min	10.5 %
Whirlpool	Cascade	10 g	20 min	6 %
Whirlpool	Citra	10 g	20 min	12 %
Dry Hop	Centennial	15 g	3 day(s)	10.5 %
Dry Hop	Cascade	15 g	3 day(s)	6 %
Dry Hop	Citra	10 g	3 day(s)	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	11 g	fermentis