

# zacier1

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **83**
- SRM **4.6**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **25.8 liter(s)**

## Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **15 min**

## Mash step by step

- Heat up **19.8 liter(s)** of strike water to **73C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **15 min** at **72C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (80.6%)	80 %	5
Grain	Viking Pilsner malt	1 kg (16.1%)	82 %	4
Sugar	Corn Sugar (Dextrose)	0.2 kg (3.2%)	100 %	0

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	40 g	60 min	11 %
Boil	lunga	30 g	30 min	11 %
Boil	Mandarina Bavaria	10 g	15 min	10 %
Boil	Citra	10 g	15 min	12 %
Aroma (end of boil)	Citra	10 g	5 min	12 %
Aroma (end of boil)	Mandarina Bavaria	30 g	0 min	10 %
Aroma (end of boil)	Citra	20 g	0 min	12 %
Dry Hop	Citra	30 g	---	12 %
Dry Hop	Mandarina Bavaria	60 g	---	10 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	11 g	Fermentis
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