

## Family brew

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- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **31**
- SRM **3.8**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

### Steps

- Temp **35 C**, Time **15 min**
- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **37.5C**
- Add grains
- Keep mash **15 min** at **35C**
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **11 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.5 kg (87.5%)	85 %	4
Grain	Platki owsiane	0.5 kg (12.5%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	20 g	20 min	12 %
Aroma (end of boil)	Citra	10 g	5 min	12 %
Aroma (end of boil)	Amarillo	30 g	5 min	9.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis