

## Pale Ale herbal

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **37**
- SRM **5.2**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

### Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **9 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **10.4 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (66.7%)	80 %	5
Grain	Caramel/Crystal Malt - 10L	0.25 kg (8.3%)	75 %	30
Grain	Colorado Honig	0.25 kg (8.3%)	79 %	6
Grain	golden ale viking	0.5 kg (16.7%)	80 %	11.5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	10 g	40 min	12 %
Boil	Pekko	5 g	10 min	15.6 %
Aroma (end of boil)	citra	10 g	10 min	12 %
Aroma (end of boil)	Centennial	10 g	5 min	10.5 %
Aroma (end of boil)	El Dorado	5 g	5 min	13.7 %

### Yeasts

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

## Extras

Type	Name	Amount	Use for	Time
Herb	werbena cytrynowa	2 g	Boil	5 min
Herb	kwiat jaśminu	2 g	Boil	5 min
Herb	trawa cytrynowa	2 g	Boil	5 min
Herb	mięta nana	1 g	Boil	5 min
Herb	kwiat pomarańczy	2 g	Boil	5 min
Herb	kwiat rumianku	1 g	Boil	5 min
Herb	kwiat lawendy	1 g	Boil	5 min
Herb	kwiat opuncji figowej	1 g	Boil	5 min

## Notes

- warka #13  
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