

## Bez nazwy

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **28**
- SRM **5.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (83.3%)	80 %	5
Grain	Karmelowy Jasny 30EBC	1 kg (16.7%)	75 %	30

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	20 g	30 min	13 %
Boil	Columbus/Tomahawk/Zeus	20 g	10 min	15.5 %
Aroma (end of boil)	Hallertau	30 g	0 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	20 g	Fermentis