

## Pale Ale + czekoladowy

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- Gravity **8.8 BLG**
- ABV **3.4 %**
- IBU **25**
- SRM **11.4**

### Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **31.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **38 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.5 liter(s)**
- Total mash volume **20.6 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **15.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **27.7 liter(s)** of **76C** water or to achieve **38 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (97.1%)	80 %	5
Grain	Strzegom Czekoladowy 1200	0.15 kg (2.9%)	68 %	1202

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Summit	10 g	50 min	14.3 %
Boil	Summit	10 g	30 min	14.3 %
Boil	Summit	10 g	10 min	14.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	11.5 g	---