

## #8 PALE ALE

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **35**
- SRM **3.7**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **20.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **14.8 liter(s)**
- Total mash volume **19.4 liter(s)**

### Steps

- Temp **53 C**, Time **20 min**
- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **14.8 liter(s)** of strike water to **58C**
- Add grains
- Keep mash **20 min** at **53C**
- Keep mash **40 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **25.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2 kg (44.4%)	80 %	4
Grain	Viking Pale Ale malt	2.5 kg (55.6%)	80 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	50 min	13.5 %
Boil	Mandarina Bavaria	20 g	25 min	10 %
Boil	Mandarina Bavaria	20 g	5 min	10 %

### Yeasts

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