

## Pale Ale 20L

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **28**
- SRM **4.9**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **20.5 liter(s)**

### Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **15.9 liter(s)** of strike water to **69.2C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4.3 kg (94.5%)	79 %	6
Grain	Castle Abbey Malt	0.25 kg (5.5%)	75 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	10 g	60 min	13.5 %
Boil	Citra	10 g	20 min	13.5 %
Aroma (end of boil)	Citra	15 g	5 min	13.5 %
Dry Hop	Citra	15 g	3 day(s)	13.5 %

### Yeasts

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