

**apa 23.02.2024r**

---

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **59**
- SRM **4.2**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

### Mash information

- Mash efficiency **88 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **18.5 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**

### Mash step by step

- Heat up **14.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Castle Pale Ale	1 kg (24.4%)	80 %	8
Grain	Pilzneński	1.3 kg (31.7%)	81 %	4
Grain	Monachijski	0.6 kg (14.6%)	80 %	16
Grain	Pszeniczny	0.8 kg (19.5%)	85 %	4
Grain	Płatki owsiane	0.4 kg (9.8%)	60 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	25 g	60 min	12 %
Boil	Citra	25 g	1 min	12 %
Boil	Cascade	50 g	1 min	6 %
Boil	Amarillo	30 g	15 min	9.5 %
Boil	Citra	10 g	15 min	12 %