

Ozzie

- Gravity **11.4 BLG**
- ABV ---
- IBU **49**
- SRM **4.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **12 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13 liter(s)**
- Total mash volume **17.4 liter(s)**

Steps

- Temp **50 C**, Time **5 min**
- Temp **65 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **13 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **5 min** at **50C**
- Keep mash **70 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **20.2 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (92%)	79 %	6
Grain	Strzegom Monachijski typ II	0.25 kg (5.7%)	79 %	22
Grain	Strzegom Karmel 30	0.1 kg (2.3%)	75 %	30

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Ella (AUS)	7 g	60 min	14.6 %
Boil	Ella (AUS)	30 g	10 min	14.6 %
Boil	Galaxy	30 g	10 min	15 %
Dry Hop	Cascade	40 g	7 day(s)	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
M36	Ale	Dry	12 g	Mangrove