

## TO DO

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- Gravity **14.7 BLG**
- ABV ---
- IBU **99**
- SRM **11.3**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **77 C**, Time **5 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **77C**
- Sparge using **15.8 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	6 kg (100%)	79 %	22
Grain	Strzegom Pszeniczny	0 kg	81 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Topaz	15 g	60 min	16.3 %
Boil	Chinook	15 g	60 min	12 %
Boil	Centennial	10 g	15 min	8.5 %
Boil	Simcoe	10 g	15 min	13.2 %
Boil	Ella (AUS)	10 g	15 min	14.6 %
Boil	Centennial	10 g	10 min	8.5 %
Boil	Topaz	15 g	10 min	16.3 %
Boil	Chinook	15 g	10 min	12 %
Boil	Simcoe	10 g	5 min	13.2 %
Boil	Ella (AUS)	10 g	5 min	14.6 %
Boil	Topaz	20 g	5 min	16.3 %
Boil	Chinook	20 g	5 min	12 %
Boil	Centennial	15 g	5 min	8.5 %

Boil	Centennial	15 g	0 min	8.5 %
Dry Hop	Simcoe	30 g	5 day(s)	13.2 %
Dry Hop	Ella (AUS)	30 g	5 day(s)	14.6 %