

## Na oko

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **70**
- SRM **5.1**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.9 liter(s)**
- Total mash volume **27.8 liter(s)**

### Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **79 C**, Time **15 min**

### Mash step by step

- Heat up **20.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **79C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	4 kg (57.6%)	81 %	4
Grain	Briess - Pale Ale Malt	2 kg (28.8%)	80 %	7
Grain	Pszeniczny	0.5 kg (7.2%)	85 %	5
Grain	Płatki owsiane	0.45 kg (6.5%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	15 g	60 min	13.2 %
Boil	Simcoe	15 g	20 min	13.2 %
Boil	Citra	15 g	20 min	12 %
Boil	Equinox	15 g	20 min	13.1 %
Boil	Amarillo	15 g	20 min	9.5 %
Boil	Simcoe	15 g	5 min	13.2 %
Boil	Citra	15 g	5 min	12 %
Boil	Equinox	15 g	5 min	13.1 %
Boil	Amarillo	15 g	5 min	9.5 %
Boil	Citra	30 g	0 min	12 %

Boil	Equinox	30 g	0 min	13.1 %
Boil	Amarillo	30 g	0 min	9.5 %
Boil	Vic Secret	30 g	0 min	16.3 %
Dry Hop	Simcoe	30 g	4 day(s)	13.2 %
Dry Hop	Citra	30 g	4 day(s)	12 %
Dry Hop	Amarillo	30 g	4 day(s)	9.5 %
Dry Hop	Equinox	30 g	4 day(s)	13.1 %
Dry Hop	Vic Secret	50 g	4 day(s)	16.3 %

## Yeasts

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