

## Baca

- Gravity **14.3 BLG**
- ABV ---
- IBU **48**
- SRM **22.9**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **18.7 liter(s)**
- Total mash volume **24.2 liter(s)**

### Steps

- Temp **63 C**, Time **50 min**
- Temp **72 C**, Time **10 min**

### Mash step by step

- Heat up **18.7 liter(s)** of strike water to **69.3C**
- Add grains
- Keep mash **50 min** at **63C**
- Keep mash **10 min** at **72C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (54.5%)	81 %	4
Grain	Pale Ale	1 kg (18.2%)	80 %	4
Grain	Strzegom Wiedeński	1 kg (18.2%)	79 %	10
Grain	Słód Caraaroma (R)	0.3 kg (5.5%)	--- %	690
Grain	zakwaszający	0.2 kg (3.6%)	80 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	20 g	60 min	15.5 %
Boil	Amarillo	5 g	60 min	8.8 %
Aroma (end of boil)	Sybilla	20 g	10 min	5.9 %
Aroma (end of boil)	Amarillo	25 g	5 min	8.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	200 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Flavor	Curacao	15 g	Boil	5 min