

## Polskie Pale Ale v.3

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **20**
- SRM **4.3**

### Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **39.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **48.1 liter(s)**

### Mash information

- Mash efficiency **91 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28.5 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **75.4C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **34.6 liter(s)** of **76C** water or to achieve **48.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	3 kg (40%)	81 %	5
Grain	Viking Pale Ale malt	3 kg (40%)	80 %	6
Grain	Viking Wheat Malt	0.6 kg (8%)	83 %	5
Grain	Rye Malt	0.4 kg (5.3%)	63 %	10
Grain	Caramel/Crystal Malt - 10L	0.3 kg (4%)	75 %	20
Grain	Biscuit Malt	0.2 kg (2.7%)	79 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	8.8 %
Boil	Lublin (Lubelski)	20 g	20 min	4 %
Boil	Lublin (Lubelski)	30 g	5 min	4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	240 ml	Safale