

## Polish Pal Ale Test 2

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **59**
- SRM **5.4**

### Batch size

- Expected quantity of finished beer **16.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **22.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **16.4 liter(s)**

### Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **12.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (97.6%)	80 %	5
Grain	Strzegom Karmel 150	0.1 kg (2.4%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	7 %
Boil	Lublin (Lubelski)	70 g	10 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	0 min	4 %
Dry Hop	Oktawia	100 g	3 day(s)	7.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-05	Ale	Dry	11 g	Safale