

Polish Pale Ale

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **43**
- SRM **9**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.9 liter(s)**
- Total mash volume **17.2 liter(s)**

Steps

- Temp **51 C**, Time **10 min**
- Temp **68 C**, Time **80 min**
- Temp **75.6 C**, Time **5 min**

Mash step by step

- Heat up **12.9 liter(s)** of strike water to **56.2C**
- Add grains
- Keep mash **10 min** at **51C**
- Keep mash **80 min** at **68C**
- Keep mash **5 min** at **75.6C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **24.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2.55 kg (59.3%)	80 %	4.2
Grain	Monachijski	1.4 kg (32.6%)	80 %	19
Grain	Strzegom Karmel 150	0.35 kg (8.1%)	80 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	40 g	60 min	6.5 %
Boil	Oktawia	40 g	10 min	7.1 %
Dry Hop	Lublin (Lubelski)	40 g	2 day(s)	3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar