

## #18 Polskie Ale

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **26**
- SRM **9.4**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **30.8 liter(s)**

### Mash information

- Mash efficiency **88 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

### Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **15 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **20.8 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (40%)	80 %	5
Grain	Strzegom Pilzneński	1.6 kg (32%)	80 %	4
Grain	Pszeniczny	0.2 kg (4%)	85 %	4
Grain	Płatki owsiane	0.4 kg (8%)	85 %	3
Grain	Karmelowy Pszeniczny Strzegom	0.8 kg (16%)	79 %	130

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	5 g	60 min	11.2 %
Boil	lunga	5 g	60 min	11 %
Boil	lunga	10 g	30 min	11 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	5 min	4 %
Aroma (end of boil)	Marynka	30 g	5 min	10 %
Whirlpool	lunga	30 g	0 min	11 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Slant	150 ml	Fermentis
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