

## #27 Polish Pale Ale

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **48**
- SRM **4.2**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **2 %**
- Size with trub loss **22.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **28.4 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **20.5 liter(s)**

### Steps

- Temp **63 C**, Time **45 min**
- Temp **15 C**, Time **72 min**
- Temp **1 C**, Time **78 min**

### Mash step by step

- Heat up **15.9 liter(s)** of strike water to **-1.7C**
- Add grains
- Keep mash **78 min** at **1C**
- Keep mash **72 min** at **15C**
- Keep mash **45 min** at **63C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **28.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.8 kg (83.5%)	85 %	7
Grain	Pszeniczny	0.75 kg (16.5%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	45 g	60 min	10 %
Whirlpool	Zula	50 g	1 min	13.3 %
Whirlpool	Książęcy	50 g	1 min	10.1 %
Dry Hop	Książęcy	100 g	2 day(s)	10.1 %
Dry Hop	Zula	50 g	2 day(s)	13.3 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand - LalBrew Verdant IPA	Ale	Dry	11 g	Lallemand