

## PPA 2

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **42**
- SRM **4.4**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **28 liter(s)**
- Trub loss **3 %**
- Size with trub loss **29.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **22.2 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny Malteurop	1 kg (16.7%)	85 %	4
Grain	Pale Ale Malteurop	5 kg (83.3%)	81 %	7

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	7.8 %
Boil	Sybilla	15 g	10 min	6.9 %
Aroma (end of boil)	Marynka	30 g	10 min	7.8 %
Aroma (end of boil)	Sybilla	35 g	0 min	4.7 %
Dry Hop	Sybilla	50 g	4 day(s)	6.9 %
Dry Hop	Marynka	70 g	4 day(s)	7.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Fining	Mecz irlandzki	5 g	Boil	10 min