

## ppa

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **26**
- SRM **5.8**
- Style **Standard/Ordinary Bitter**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **30 min** at **72C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **26.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3 kg (60%)	75 %	5
Grain	Karmelowy Jasny 30EBC	1 kg (20%)	75 %	30
Adjunct	Płatki owsiane	0.5 kg (10%)	85 %	3
Adjunct	Płatki pszeniczne	0.5 kg (10%)	85 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	8.8 %
Boil	Lublin (Lubelski)	20 g	20 min	4 %
Aroma (end of boil)	Lublin (Lubelski)	20 g	7 min	4 %
Dry Hop	Lublin (Lubelski)	30 g	3 day(s)	4 %
Dry Hop	Marynka	30 g	3 day(s)	8.8 %

### Yeasts

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