

## warka 23

---

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **17**
- SRM **6.4**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **40 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **72C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Minich Dark	2 kg (36.4%)	80 %	25
Grain	hook head pilsner-irish	3 kg (54.5%)	80 %	3.5
Grain	Briess - Wheat Malt, White	0.25 kg (4.5%)	85 %	5
Grain	Oats, Flaked	0.25 kg (4.5%)	80 %	2

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (USA)	40 g	40 min	3.75 %
Boil	Mosaic	20 g	5 min	11.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis

### Notes

- po gotowaniu wyszło 1052-13blg  
Aug 31, 2018, 5:44 PM