

## warka 32

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **19**
- SRM **12.7**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.8 liter(s)**
- Total mash volume **23.7 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **40 min**

### Mash step by step

- Heat up **17.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **72C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Minich	1.38 kg (23.3%)	80.5 %	15
Grain	Słód CHÂTEAU PEATED	1.12 kg (18.9%)	80 %	4
Grain	Weyermann - Bohemian Pilsner Malt	2.5 kg (42.2%)	81 %	4
Grain	Briess - Carapils Malt	0.25 kg (4.2%)	74 %	3
Grain	Wheat Malt-irich	0.25 kg (4.2%)	85 %	5
Grain	Chocolate Malt (UK)	0.17 kg (2.9%)	73 %	900
Grain	Oats, Flaked	0.25 kg (4.2%)	80 %	2

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (USA)	18.7 g	50 min	3.75 %
Boil	Mosaic	10 g	30 min	11.5 %
Boil	Mosaic	10 g	10 min	11.5 %
Boil	Mosaic	5 g	5 min	11.5 %

### Yeasts

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

## Notes

- pogotowaniu wyszło 1056-14 blg  
*Nov 9, 2018, 4:10 PM*