# warka 37

- Gravity 12.1 BLG
- ABV 4.9 %
- IBU **18**
- SRM 16.1
- Style American Stout

#### **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 62 C, Time 30 min
  Temp 72 C, Time 40 min

# Mash step by step

- Heat up 16.5 liter(s) of strike water to 69C
- Add grains
- Keep mash 30 min at 62C
- Keep mash 40 min at 72C
- Sparge using 18 liter(s) of 76C water or to achieve 29 liter(s) of wort

#### **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2.5 kg <i>(45.5%)</i>	80 %	7
Grain	Weyermann - Bohemian Pilsner Malt	1.5 kg <i>(27.3%)</i>	81 %	4
Grain	Słód CHÂTEAU PEATED	0.6 kg <i>(10.9%)</i>	80 %	4
Grain	Weyermann - Dark Wheat Malt	0.25 kg <i>(4.5%)</i>	85 %	14
Grain	Oats, Flaked	0.25 kg <i>(4.5%)</i>	80 %	2
Grain	Weyermann Caramunich 3	0.25 kg <i>(4.5%)</i>	76 %	150
Grain	crafta special 3	0.15 kg <i>(2.7%)</i>	76 %	1300

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (USA)	41 g	39 min	3.75 %
Boil	Mosaic	20 g	6 min	11.5 %

### **Yeasts**

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

 po gotowaniu wyszło 1050-12.5 blg Feb 7, 2019, 7:38 PM