stout wytrawny

- Gravity **8.5 BLG**
- ABV **3.3 %**
- IBU **26**
- SRM **24.1**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.4 liter(s)**

Steps

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

Mash step by step

- Heat up **10.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.2 kg *(88.9%)*	79 %	7
Grain	carafa typ 2	0.1 kg *(2.8%)*	65 %	1100
Grain	Jęczmień palony	0.3 kg *(8.3%)*	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	English Golding	15 g	60 min	4.8 %
Boil	English Golding	15 g	15 min	4.8 %
Boil	Marynka	10 g	60 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
us 04	Ale	Dry	11.5 g	---

Extras

Type	Name	Amount	Use for	Time
Other	platki jeczmienne	500 g	Boil	60 min