

## AS lvl 2

---

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **47**
- SRM **28.3**
- Style **American Stout**

### 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 **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22 liter(s)**
- Total mash volume **29.3 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **66 C**, Time **10 min**
- Temp **69 C**, Time **10 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **22 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **10 min** at **66C**
- Keep mash **10 min** at **69C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **10.6 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.5 kg (61.5%)	80 %	5
Grain	Monachijski	1 kg (13.7%)	80 %	16
Grain	Słód owsiany Fawcett	0.5 kg (6.8%)	61 %	5
Grain	Fawcett - Brown	0.07 kg (1%)	72 %	180
Grain	Jęczmień palony	0.25 kg (3.4%)	55 %	985
Grain	Fawcett - Pale Chocolate	0.3 kg (4.1%)	71 %	600
Grain	Karmelowy żytni Strzegom	0.3 kg (4.1%)	75 %	150
Grain	Płatki pszeniczne	0.4 kg (5.5%)	60 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	45 min	11 %
Boil	Simcoe	30 g	25 min	13.2 %

Boil	Enigma (AUS)	15 g	5 min	17.2 %
Whirlpool	Enigma (AUS)	15 g	---	17.2 %
Boil	Idaho 7	15 g	5 min	12.7 %
Whirlpool	Idaho 7	15 g	---	12.7 %

## Notes

- Na zimno 20g simcoe idaho i enigma  
37l wody 10g kredy 2g sody oczyszczonej 2g gipsu piwowarskiego  
Ca+2  
Mg+2  
SO4-2  
Na+  
Cl-  
HCO3-  
*Jun 8, 2021, 7:23 AM*