

## Stoutua Wolności(Piowarzone3)

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **72**
- SRM **62.3**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **0 %**
- Size with trub loss **14 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.9 liter(s)**

### Mash information

- Mash efficiency **69 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **21.1 liter(s)**

### Steps

- Temp **64 C**, Time **35 min**
- Temp **72 C**, Time **35 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **35 min** at **64C**
- Keep mash **35 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **4.3 liter(s)** of **76C** water or to achieve **16.9 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale (2-row)	2.7 kg (64.1%)	80 %	15
Grain	Monachijski typ I	0.5 kg (11.9%)	74.39 %	31
Grain	BEST Wheat Malt (BESTMALZ)	0.25 kg (5.9%)	83.5 %	11
Grain	Oats, Flaked	0.17 kg (4%)	80 %	4
Grain	CHÂTEAU CAFÉ LIGHT®	0.15 kg (3.6%)	77 %	666
Grain	Carafa Special III (Weyermann)	0.15 kg (3.6%)	75.74 %	2469
Grain	Jęczmień prażony	0.15 kg (3.6%)	71.79 %	2667
Grain	Aromatic Malt	0.08 kg (1.9%)	78 %	135
Grain	Pszeniczny czekoladowy	0.06 kg (1.4%)	71 %	3134

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook pl	20 g	60 min	10 %
Boil	Citra	10 g	30 min	12 %
Boil	Citra	15 g	15 min	12 %

Whirlpool	Ahtanum	15 g	30 min	3.4 %
Whirlpool	Citra	15 g	30 min	12 %
Dry Hop	Simcoe	50 g	4 day(s)	13.2 %
Dry Hop	Citra	40 g	4 day(s)	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale American	Ale	Dry	11 g	DCL/Fermentis

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Gypsum (Calcium Sulfate)	2 g	Mash	60 min