

# Żonkowy stout

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **24**
- SRM **24.5**
- Style **Sweet Stout**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **11 %/h**
- Boil size **28.1 liter(s)**

## Mash information

- Mash efficiency **95 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.2 liter(s)**
- Total mash volume **19.6 liter(s)**

## Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **35 min**
- Temp **78 C**, Time **2 min**

## Mash step by step

- Heat up **15.2 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **35 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **28.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Mep@ale	0.9 kg (20.7%)	81 %	8.5
Grain	MEP@Lager	2.4 kg (55.2%)	82 %	6
Grain	Strzegom Czekoladowy jasny	0.25 kg (5.7%)	68 %	400
Grain	Strzegom Karmel 30	0.1 kg (2.3%)	75 %	30
Grain	Jęczmień palony	0.35 kg (8%)	55 %	985
Grain	Płatki owsiane	0.35 kg (8%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	30 g	60 min	6 %
Boil	Perle	20 g	15 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	150 ml	Fermentis