

# STOUT ODPADOWY

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- Gravity **15.4 BLG**
- ABV ---
- IBU **60**
- SRM **51.4**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.9 liter(s)**
- Total mash volume **29.2 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **21.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **17.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (68.5%)	80 %	5
Grain	chocolate 1200 Fawcett	0.7 kg (9.6%)	72 %	1200
Grain	Monachijski	0.5 kg (6.8%)	80 %	---
Grain	Carafa III	0.3 kg (4.1%)	70 %	1300
Grain	Pszeniczny	0.4 kg (5.5%)	85 %	5
Grain	Jęczmień palony	0.2 kg (2.7%)	55 %	985
Grain	płatki jęczmienne	0.2 kg (2.7%)	70 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	35 g	60 min	15.5 %
Boil	Cascade	10 g	15 min	6 %
Boil	Simcoe	10 g	15 min	13.2 %
Boil	Cascade	15 g	5 min	6 %
Boil	Simcoe	15 g	5 min	13.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis

### Extras

Type	Name	Amount	Use for	Time
Water Agent	kreda	5 g	Mash	20 min

### Notes

- Palone od początku - zobaczymy co z tego wyjdzie  
*Feb 24, 2017, 12:10 PM*