

# Zdradliwy Stout

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **39**
- SRM **40.6**
- Style **Oatmeal Stout**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **8 %/h**
- Boil size **30.2 liter(s)**

## Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23 liter(s)**
- Total mash volume **30.6 liter(s)**

## Steps

- Temp **65 C**, Time **50 min**
- Temp **69 C**, Time **15 min**

## Mash step by step

- Heat up **23 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **50 min** at **65C**
- Keep mash **15 min** at **69C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **30.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (52.3%)	78 %	5
Grain	Żytni	1 kg (13.1%)	83 %	8
Grain	Pszeniczny	0.4 kg (5.2%)	85 %	4
Grain	Strzegom Karmel 300	0.4 kg (5.2%)	70 %	299
Grain	Castle Cafe	0.3 kg (3.9%)	75.5 %	200
Grain	Fawcett - Pszeniczny Czekoladowy	0.3 kg (3.9%)	73 %	1001
Grain	Strzegom Czekoladowy 400	0.2 kg (2.6%)	68 %	400
Grain	Strzegom Czekoladowy 1200	0.2 kg (2.6%)	68 %	1202
Grain	Płatki owsiane	0.6 kg (7.8%)	85 %	3
Grain	Jęczmień palony	0.25 kg (3.3%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	25 g	50 min	11.2 %
Boil	lunga	25 g	15 min	11 %

Aroma (end of boil)	lunga	25 g	5 min	11 %
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### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	Safale

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips piwowarski	15 g	Boil	5 min

### Notes

- czekoladowy pszeniczny i 400 na ostatnie 20 minut;
  - jęczmień palony i czekoladowy 1200 na ostatnie 10 minut;
  - cała reszta słodów na początek zacierania;
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