

## Stout z dodatkami

- Gravity **12 BLG**
- ABV ---
- IBU **60**
- SRM **40**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**

### Mash step by step

- Heat up **14.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (83.3%)	79 %	6
Grain	Strzegom Czekoladowy ciemny	0.4 kg (8.3%)	68 %	800
Grain	Jęczmień palony	0.2 kg (4.2%)	55 %	985
Grain	płatki owsiane	0.2 kg (4.2%)	50 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Pilgrim	30 g	60 min	10 %
Boil	Challenger	30 g	60 min	7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us-04	Ale	Dry	11.5 g	---

### Extras

Type	Name	Amount	Use for	Time
Flavor	Kawa	100 g	Secondary	14 day(s)
Flavor	kakao	40 g	Secondary	14 day(s)
Flavor	laska wanilii	4 g	Secondary	14 day(s)