

## #9 Chocolate stout

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **52**
- SRM **34.3**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **18.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **77 C**, Time **10 min**

### Mash step by step

- Heat up **12.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **77C**
- Sparge using **10.1 liter(s)** of **76C** water or to achieve **18.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.6 kg (60.5%)	80 %	4
Grain	Płatki owsiane	0.6 kg (14%)	85 %	3
Grain	Strzegom Czekoladowy jasny	0.3 kg (7%)	68 %	400
Grain	Jęczmień palony	0.2 kg (4.7%)	55 %	985
Grain	Karmelowy Jasny 30EBC	0.1 kg (2.3%)	75 %	30
Grain	Strzegom Karmel 300	0.2 kg (4.7%)	70 %	299
Grain	Strzegom Karmel 600	0.2 kg (4.7%)	68 %	601
Adjunct	Pszenica niesłodowana	0.1 kg (2.3%)	75 %	3

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Summit	15 g	60 min	17 %
Aroma (end of boil)	Mandarina Bavaria	10 g	10 min	7.5 %
Whirlpool	Mandarina Bavaria	25 g	50 min	7.5 %
W temp 75 ->70°C				

Dry Hop	Mandarina Bavaria	15 g	3 day(s)	7.5 %
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## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	7 g	Safale