

## tropical stout

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- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **58**
- SRM **40.1**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **15.5 liter(s)**
- Total mash volume **21.7 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **15.5 liter(s)** of strike water to **77.6C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	4.5 kg (72.6%)	80 %	7
Grain	Strzegom Czekoladowy ciemny	0.5 kg (8.1%)	68 %	1200
Grain	Strzegom Karmel 300	0.25 kg (4%)	70 %	299
Grain	Pszeniczny	0.25 kg (4%)	85 %	4
Grain	Strzegom Monachijski typ II	0.5 kg (8.1%)	79 %	22
Grain	Jęczmień palony	0.1 kg (1.6%)	55 %	985
Grain	Carafa	0.1 kg (1.6%)	70 %	664

### Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Galaxy	100 g	30 min	15 %
Dry Hop	Galaxy	100 g	1 day(s)	15 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us 04	Ale	Dry	20 g	---