

## Coffee time

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **37**
- SRM **36.1**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.8 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 **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **14.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **22.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (83.3%)	80 %	5
Grain	Strzegom Karmel 600	0.2 kg (4.2%)	68 %	601
Grain	Jęczmień palony	0.3 kg (6.3%)	55 %	985
Grain	Strzegom Czekoladowy jasny	0.1 kg (2.1%)	68 %	400
Grain	Carafa III	0.2 kg (4.2%)	70 %	1034

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zeus	20 g	60 min	15.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP099 - Super High Gravity Ale Yeast	Ale	Liquid	800 ml	White Labs