

## Czarno to widzę (Dry Stout)

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **35**
- SRM **33.1**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

### Steps

- Temp **67 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **15.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **28.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (78.4%)	80 %	5
Grain	Płatki pszeniczne	0.5 kg (9.8%)	85 %	3
Grain	Strzegom Czekoladowy ciemny	0.6 kg (11.8%)	68 %	1200

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	50 g	50 min	7.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale