

## Czarno to widzę

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- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **23**
- SRM **39.3**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **15.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

### Steps

- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **40 min** at **68C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **8.4 liter(s)** of **76C** water or to achieve **15.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2.5 kg (71.4%)	79 %	6
Grain	Strzegom Czekoladowy 400	0.5 kg (14.3%)	68 %	400
Grain	Fawcett - Pale Chocolate	0.5 kg (14.3%)	71 %	600

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sybilla	50 g	30 min	3.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	10 g	Safale

### Extras

Type	Name	Amount	Use for	Time
Other	Laktoza	500 g	Boil	10 min