

Czarno to widzę (Dry Stout)

- 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 |