

ciemne

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **42**
- SRM **39.8**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **33.1 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **22.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (66.7%)	80 %	5
Grain	Strzegom Monachijski typ I	1 kg (13.3%)	79 %	16
Grain	Strzegom Barwiący	0.5 kg (6.7%)	68 %	1300
Grain	Czekoladowy	0.5 kg (6.7%)	60 %	800
Grain	Płatki owsiane	0.5 kg (6.7%)	60 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Bravo	30 g	60 min	13.2 %
Boil	Amarillo	15 g	30 min	8.4 %
Dry Hop	Amarillo	15 g	3 day(s)	8.4 %
Dry Hop	Hallertau Blanc	30 g	3 day(s)	8.9 %

Yeasts

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