

W młodości byłem Murzynem i grałem w kosza

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **68**
- SRM **31.1**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **10 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **34.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.1 liter(s)**
- Total mash volume **29.4 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **22.1 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **19.8 liter(s)** of **76C** water or to achieve **34.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (68%)	80 %	5
Grain	Carafa II	0.2 kg (2.7%)	70 %	812
Grain	Jęczmień palony	0.25 kg (3.4%)	55 %	985
Grain	Fawcett - Pszeniczny Czekoladowy	0.2 kg (2.7%)	73 %	1001
Grain	Monachijski	0.5 kg (6.8%)	80 %	16
Grain	Strzegom Karmel 150	1 kg (13.6%)	75 %	150
Grain	Płatki pszeniczne	0.2 kg (2.7%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	50 g	60 min	12 %
Boil	Citra	30 g	30 min	12 %
Whirlpool	Citra	20 g	0 min	12 %
Dry Hop	Equinox	50 g	4 day(s)	13.1 %
Dry Hop	Mosaic	50 g	4 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale