

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 |