

voodoo

- Gravity **15 BLG**
- ABV ---
- IBU **87**
- SRM **35.7**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **24.5 liter(s)**
- Total mash volume **31.5 liter(s)**

Steps

- Temp **68 C**, Time **80 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **24.5 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **80 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 5 kg (71.4%) | 80 % | 7.5 |
| Grain | Strzegom Wiedeński | 1.2 kg (17.1%) | 79 % | 12 |
| Grain | Carafa III | 0.3 kg (4.3%) | 70 % | 1500 |
| Grain | Strzegom Barwiący | 0.3 kg (4.3%) | 68 % | 1300 |
| Grain | Pszeniczny | 0.2 kg (2.9%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|----------|------------|
| Boil | Galaxy | 20 g | 60 min | 15 % |
| Boil | Equinox | 20 g | 60 min | 14.6 % |
| Boil | Citra | 20 g | 30 min | 12 % |
| Boil | Cascade | 20 g | 30 min | 6 % |
| Boil | Citra | 30 g | 10 min | 12 % |
| Boil | Cascade | 35 g | 5 min | 6 % |
| Dry Hop | Citra | 45 g | 4 day(s) | 12 % |
| Dry Hop | Amarillo | 45 g | 4 day(s) | 9.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|-------------|-------------|---------------|-------------------|
| FM52 Amerykański Sen | Ale | Slant | 150 ml | --- |