

Hello darkness

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **87**
- SRM **32.1**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **15.2 liter(s)**

Mash information

- Mash efficiency **62 %**
- Liquor-to-grist ratio **5.1 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **22.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **19 liter(s)** of strike water to **71.6C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **-0.1 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-----------------------------|--------------------------|----------------|-------|-----|
| Grain | GlobalMalt Pale Ale/Pils | 2.6 kg (69.7%) | 82 % | 5 |
| Grain | Monachijski | 0.33 kg (8.8%) | 80 % | 16 |
| Grain | Płatki owsiane | 0.33 kg (8.8%) | 60 % | 3 |
| Grain | GlobalMalt Pszeniczny | 0.12 kg (3.2%) | 84 % | 5 |
| Grain | Jęczmień palony | 0.35 kg (9.4%) | 1 % | 985 |
| Na koniec zacierania (76°C) | | | | |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|--------|--------|----------|------------|
| Boil | Mosaic | 30 g | 60 min | 12.4 % |
| Whirlpool | Mosaic | 60 g | 5 min | 12.4 % |
| Dry Hop | Mosaic | 60 g | 3 day(s) | 12.4 % |