

Black IPA nowe

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **65**
- SRM **29.1**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **28.4 liter(s)**

Steps

- Temp **76 C**, Time **60 min**

Mash step by step

- Heat up **21.3 liter(s)** of strike water to **85.3C**
- Add grains
- Keep mash **60 min** at **76C**
- Sparge using **13.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------|---------------|-------|------|
| Grain | Viking Pale Ale malt | 5 kg (70.4%) | 80 % | 5 |
| Grain | Strzegom Karmel 150 | 0.5 kg (7%) | 75 % | 150 |
| Grain | Pszeniczny | 0.5 kg (7%) | 85 % | 4 |
| Grain | Jęczmień palony | 0.5 kg (7%) | 55 % | 1000 |
| Grain | Jęczmień niesłodowany | 0.4 kg (5.6%) | 75 % | 2 |
| Grain | Płatki owsiane | 0.2 kg (2.8%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|----------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |
| Boil | Cascade PL | 50 g | 15 min | 5.2 % |
| Boil | Chinook | 50 g | 15 min | 13 % |
| Dry Hop | Cascade PL | 50 g | 3 day(s) | 5.2 % |
| Dry Hop | Chinook | 50 g | 3 day(s) | 13 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|-------|--------|------------|
| Us-05 | Ale | Slant | 30 ml | --- |