

Black IPA

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **61**
- SRM **37.8**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **21.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **21.2 liter(s)**
- Total mash volume **26.5 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **21.2 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **5.6 liter(s)** of **76C** water or to achieve **21.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------------------------------------|---------------------------------|----------------|-------|------|
| Grain | Monachijski typ I | 4.3 kg (81.1%) | 80 % | 17 |
| Grain | Weyermann - Dehusked Carafa III | 0.4 kg (7.5%) | 70 % | 1500 |
| Dodać na ostatnie 20 min zacierania | | | | |
| Grain | Płatki owsiane | 0.6 kg (11.3%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil | Idaho 7 | 12.5 g | 20 min | 13.2 % |
| Boil | Idaho 7 | 37.5 g | 10 min | 13.2 % |
| Aroma (end of boil) | Citra | 50 g | 7 min | 12.6 % |
| Aroma (end of boil) | Idaho 7 | 25 g | 5 min | 13.2 % |
| Dry Hop | Idaho 7 | 50 g | 7 day(s) | 13.2 % |
| Dry Hop | Citra | 12.5 g | 7 day(s) | 12.6 % |

Yeasts

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

Extras

| Type | Name | Amount | Use for | Time |
|-------------------|--------------|--------|----------|--------|
| Other | łuska ryżowa | 10 g | Mash | 72 min |
| pomoc w filtracji | | | | |
| Other | Witamina C | 3 g | Bottling | --- |