

Black IPA - Hubert

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **36**
- SRM **32.3**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **11.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **16.2 liter(s)**

Steps

- Temp **55 C**, Time **5 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **12.1 liter(s)** of strike water to **60.9C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **60 min** at **63C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **14.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 2 kg (49.4%) | 85 % | 7 |
| Grain | Pszeniczny | 0.5 kg (12.3%) | 85 % | 4 |
| Grain | Monachijski | 0.4 kg (9.9%) | 80 % | 16 |
| Grain | Płatki owsiane | 0.15 kg (3.7%) | 60 % | 3 |
| Grain | Weyermann - Carapils | 0.2 kg (4.9%) | 78 % | 4 |
| Grain | Carahell | 0.2 kg (4.9%) | 77 % | 26 |
| Grain | Płatki pszeniczne | 0.15 kg (3.7%) | 60 % | 3 |
| Grain | Caraaroma | 0.15 kg (3.7%) | 78 % | 400 |
| Grain | Jęczmień palony | 0.2 kg (4.9%) | 55 % | 985 |
| Grain | Carafa II | 0.1 kg (2.5%) | 70 % | 812 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 15 g | 25 min | 17.3 % |
| Boil | Palisade | 10 g | 5 min | 7.3 % |

| | | | | |
|------|----------|------|-------|-------|
| Boil | Comet | 10 g | 5 min | 8.3 % |
| Boil | Cascade | 10 g | 1 min | 6 % |
| Boil | Comet | 10 g | 1 min | 8.3 % |
| Boil | Palisade | 10 g | 1 min | 7.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 6 g | Fermentis |

Notes

- chmiele na zimno / fermentacja cicha
 - comet 10 g
 - cascade 10 g
 - palisade 10 g
 - magnum 20 g
- Mar 17, 2023, 11:30 PM*