

Black AIPA

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **73**
- SRM **30.3**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **110 min**
- Evaporation rate **10 %/h**
- Boil size **28.4 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **67 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16.5 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **15 min** at **67C**
- Keep mash **90 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **28.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.6 kg (83.6%) | 80 % | 5 |
| Grain | Strzegom Czekoladowy 400 | 0.4 kg (7.3%) | 68 % | 400 |
| Grain | Chocolate Malt (UK) | 0.3 kg (5.5%) | 73 % | 887 |
| Grain | Carafa II | 0.2 kg (3.6%) | 70 % | 812 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil | Bravo | 25 g | 60 min | 15.5 % |
| Boil | Dr Rudi | 25 g | 40 min | 11.8 % |
| Boil | Cascade | 15 g | 15 min | 6 % |
| Aroma (end of boil) | Cascade | 15 g | 5 min | 6 % |
| Aroma (end of boil) | Cascade | 20 g | 1 min | 6 % |
| Aroma (end of boil) | Centennial | 25 g | 1 min | 10.5 % |
| Dry Hop | Centennial | 25 g | 5 day(s) | 10.5 % |
| Dry Hop | Cascade | 30 g | 5 day(s) | 6 % |

Yeasts

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

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|---------------|----------------|-------------|
| Water Agent | gips piwowarski | 5 g | Mash | 110 min |
| Fining | Whirlfloc | 2.5 g | Boil | 15 min |