

Black IPA III

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **44**
- SRM **38**
- 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 **60 min**
- Evaporation rate **13 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.9 liter(s)**
- Total mash volume **31.8 liter(s)**

Steps

- Temp **66 C**, Time **65 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **23.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **65 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **11.9 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 | 7 kg (88.1%) | 80 % | 5 |
| Grain | Strzegom Karmel 300 | 0.4 kg (5%) | 70 % | 299 |
| Grain | Weyermann - Carafa III Special | 0.55 kg (6.9%) | 1 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 30 g | 60 min | 16.1 % |
| Aroma (end of boil) | Sorachi Ace | 150 g | 0 min | 13.3 % |
| Dry Hop | Sorachi Ace | 150 g | 3 day(s) | 13.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 23 g | Fermentis |