

Black IPA

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **72**
- SRM **26.2**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **19.5 liter(s)**

Steps

- Temp **51 C**, Time **15 min**
- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **14.9 liter(s)** of strike water to **55.8C**
- Add grains
- Keep mash **15 min** at **51C**
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 3.8 kg (77.6%) | 82 % | 4 |
| Grain | Weyermann - Carapils | 0.2 kg (4.1%) | 78 % | 4 |
| Grain | Abbey Malt Weyermann | 0.15 kg (3.1%) | 75 % | 45 |
| Grain | Weyermann - Carafa Special I | 0.5 kg (10.2%) | 70 % | 900 |
| Sugar | Cane (Beet) Sugar | 0.25 kg (5.1%) | 100 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|--------|--------|----------|------------|
| Boil | Galaxy | 25 g | 60 min | 15 % |
| Boil | Galaxy | 25 g | 10 min | 15 % |
| Whirlpool | Galaxy | 50 g | 15 min | 15 % |
| Dry Hop | Galaxy | 125 g | 2 day(s) | 15 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |