

## Black IPA

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **66**
- SRM **22.5**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **25.8 liter(s)**

### Steps

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

### Mash step by step

- Heat up **19.8 liter(s)** of strike water to **73C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

### Fermentables

| Type  | Name                      | Amount         | Yield | EBC  |
|-------|---------------------------|----------------|-------|------|
| Grain | Weyermann - Smoked Malt   | 0.5 kg (8.3%)  | 81 %  | 6    |
| Grain | Viking Pale Ale malt      | 4 kg (66.7%)   | 80 %  | 5    |
| Grain | Viking Pilsner malt       | 0.5 kg (8.3%)  | 82 %  | 4    |
| Grain | Karmelowy Jasny 30EBC     | 0.4 kg (6.7%)  | 75 %  | 30   |
| Grain | Strzegom Karmel 150       | 0.3 kg (5%)    | 75 %  | 150  |
| Grain | Carafa III                | 0.15 kg (2.5%) | 70 %  | 1034 |
| Grain | Simpsons - Roasted Barley | 0.15 kg (2.5%) | 70 %  | 1084 |

### Hops

| Use for                      | Name            | Amount | Time     | Alpha acid |
|------------------------------|-----------------|--------|----------|------------|
| Boil                         | Simcoe          | 20 g   | 60 min   | 13.2 %     |
| Aroma (end of boil)          | Hallertau Blanc | 70 g   | 5 min    | 11 %       |
| Whirlpool                    | Centennial      | 100 g  | 15 min   | 10.5 %     |
| hop stand 15 minut 76 stopni |                 |        |          |            |
| Dry Hop                      | Centennial      | 60 g   | 5 day(s) | 10.5 %     |
| Dry Hop                      | Simcoe          | 30 g   | 5 day(s) | 13.2 %     |

**Yeasts**

| Name               | Type | Form  | Amount | Laboratory |
|--------------------|------|-------|--------|------------|
| Safale US-05       | Ale  | Slant | 300 ml | Fermentis  |
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