

## BLACK IPA #3

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- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **81**
- SRM **32.6**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **18.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **23.4 liter(s)**

### Steps

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

### Mash step by step

- Heat up **17.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **23.4 liter(s)** of wort

### Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt        | 5 kg (85.5%)   | 80 %  | 5    |
| Grain | Weyermann - Carafa II       | 0.5 kg (8.5%)  | 70 %  | 1100 |
| Grain | Weyermann - Melanoiden Malt | 0.25 kg (4.3%) | 81 %  | 53   |
| Grain | Strzegom Karmel 150         | 0.1 kg (1.7%)  | 75 %  | 150  |

### Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | Mosaic   | 38 g   | 60 min | 12.8 %     |
| Aroma (end of boil) | Eldorado | 50 g   | 15 min | 11.1 %     |

### Yeasts

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