

# BLACK AIPA

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **62**
- SRM **29**
- 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 **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

## Steps

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

## Mash step by step

- Heat up **19.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 4.6 kg (83.6%) | 80 %  | 5   |
| Grain | Strzegom Karmel 300  | 0.4 kg (7.3%)  | 70 %  | 299 |
| 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     | 20 g   | 60 min   | 15.5 %     |
| Boil      | El Dorado | 20 g   | 20 min   | 15 %       |
| Whirlpool | Sabro     | 40 g   | 10 min   | 15 %       |
| Dry Hop   | Sabro     | 40 g   | 3 day(s) | 15 %       |

## Yeasts

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