

# Black IPA

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **43**
- SRM **32.6**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **55 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **15.2 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **11.4 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **5.1 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

| Type  | Name                      | Amount         | Yield | EBC  |
|-------|---------------------------|----------------|-------|------|
| Grain | Viking Pilsner malt       | 1.5 kg (39.4%) | 82 %  | 4    |
| Grain | Viking Pale Ale malt      | 1 kg (26.2%)   | 80 %  | 5    |
| Grain | Oats, Malted              | 0.4 kg (10.5%) | 80 %  | 5    |
| Grain | Strzegom Pszeniczny       | 0.4 kg (10.5%) | 81 %  | 6    |
| Grain | Viking Czekoladowy ciemny | 0.25 kg (6.6%) | 67 %  | 900  |
| Grain | Karmelowy Jasny 30EBC     | 0.2 kg (5.2%)  | 75 %  | 30   |
| Grain | Strzegom Barwiący         | 0.06 kg (1.6%) | 68 %  | 1300 |

## Hops

| Use for    | Name     | Amount | Time   | Alpha acid |
|------------|----------|--------|--------|------------|
| First Wort | Cashmere | 5 g    | ---    | 8.8 %      |
| First Wort | Sabro    | 5 g    | ---    | 15 %       |
| Boil       | Sabro    | 5 g    | 50 min | 15 %       |
| Boil       | Sabro    | 5 g    | 20 min | 15 %       |
| Boil       | Cashmere | 10 g   | 10 min | 8.8 %      |
| Boil       | Sabro    | 10 g   | 10 min | 15 %       |

## Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale  | Dry  | 11 g   | ---        |