

# Black IPA

---

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **72**
- SRM **25.5**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.1 liter(s)**

## Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.2 liter(s)**
- Total mash volume **25.6 liter(s)**

## Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **19.2 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **18.3 liter(s)** of **76C** water or to achieve **31.1 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński         | 4.4 kg (68.8%) | 80 %  | 4    |
| Grain | Strzegom Karmel 30          | 0.5 kg (7.8%)  | 75 %  | 30   |
| Grain | Strzegom Czekoladowy ciemny | 0.4 kg (6.3%)  | 68 %  | 1200 |
| Grain | Strzegom Pilzneński         | 1 kg (15.6%)   | 80 %  | 4    |
| Grain | Caraaroma                   | 0.1 kg (1.6%)  | 78 %  | 400  |

## Hops

| Use for             | Name                   | Amount | Time   | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 10 g   | 60 min | 15.5 %     |
| Boil                | Mosaic                 | 20 g   | 30 min | 11.7 %     |
| Boil                | Simcoe                 | 15 g   | 30 min | 13.2 %     |
| Aroma (end of boil) | Mosaic                 | 15 g   | 15 min | 11.7 %     |
| Aroma (end of boil) | Simcoe                 | 15 g   | 15 min | 13.2 %     |
| Aroma (end of boil) | Centennial             | 16 g   | 15 min | 10.5 %     |
| Aroma (end of boil) | Rakau (NZ)             | 20 g   | 15 min | 10.2 %     |

## Yeasts

| <b>Name</b>  | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale         | Dry         | 11 g          | Fermentis         |