

# Black Whole - czyli black ipa

---

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **60**
- SRM **70.4**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **14 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount     | Yield | EBC  |
|-------|----------------------|------------|-------|------|
| Grain | Viking Pale Ale malt | 3 kg (75%) | 80 %  | 5    |
| Grain | Strzegom Barwiący    | 1 kg (25%) | 68 %  | 1300 |

## Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | Mosaic     | 16 g   | 60 min | 10 %       |
| Aroma (end of boil) | Simcoe     | 15 g   | 10 min | 13.2 %     |
| Aroma (end of boil) | Centennial | 15 g   | 10 min | 10.5 %     |
| Aroma (end of boil) | Ekuanot    | 20 g   | 10 min | 14 %       |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 12 g   | Fermentis  |