

# Black IPA

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **67**
- SRM **29.3**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.4 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.4 liter(s)**
- Total mash volume **17.3 liter(s)**

## Steps

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

## Mash step by step

- Heat up **13.4 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **78C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount         | Yield | EBC  |
|-------|------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale      | 3.11 kg (81%)  | 79 %  | 6    |
| Grain | Strzegom Karmel 150    | 0.18 kg (4.7%) | 75 %  | 150  |
| Grain | Carahell               | 0.25 kg (6.5%) | 77 %  | 26   |
| Grain | Weyermann - Carafa III | 0.3 kg (7.8%)  | 70 %  | 1024 |

## Hops

| Use for             | Name     | Amount | Time     | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil                | Simcoe   | 10 g   | 60 min   | 13.2 %     |
| Aroma (end of boil) | Simcoe   | 15 g   | 30 min   | 13.2 %     |
| Aroma (end of boil) | Simcoe   | 10 g   | 10 min   | 13.2 %     |
| Aroma (end of boil) | Amarillo | 10 g   | 10 min   | 9.5 %      |
| Aroma (end of boil) | Citra    | 10 g   | 10 min   | 12 %       |
| Dry Hop             | Simcoe   | 40 g   | 7 day(s) | 13.2 %     |
| Dry Hop             | Amarillo | 40 g   | 7 day(s) | 9.5 %      |
| Dry Hop             | Citra    | 40 g   | 7 day(s) | 12 %       |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 6.84 g | Fermentis  |