

# Black IPA

- Gravity **14.5 BLG**
- ABV ---
- IBU **62**
- SRM **40.6**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **6 %**
- Size with trub loss **24.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **26.3 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**

## Mash step by step

- Heat up **20.5 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC  |
|-------|---------------------|----------------|-------|------|
| Grain | Pilzneński          | 5 kg (82%)     | 81 %  | 4    |
| Grain | Carafa II           | 0.5 kg (8.2%)  | 70 %  | 1100 |
| Grain | Biscuit Malt        | 0.25 kg (4.1%) | 79 %  | 45   |
| Sugar | cukier              | 0.25 kg (4.1%) | --- % | ---  |
| Grain | Strzegom Karmel 150 | 0.1 kg (1.6%)  | 75 %  | 180  |

## Hops

| Use for             | Name       | Amount | Time     | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil                | marynka    | 50 g   | 60 min   | 8.8 %      |
| Boil                | Cascade    | 25 g   | 45 min   | 6.8 %      |
| Boil                | Willamette | 25 g   | 15 min   | 4.5 %      |
| Aroma (end of boil) | Cascade    | 25 g   | 0 min    | 6 %        |
| Dry Hop             | Cascade    | 50 g   | 5 day(s) | 6 %        |

## Yeasts

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