

# BLACK IPA

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- Gravity **13.6 BLG**
- ABV ---
- IBU **43**
- SRM **28.3**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **8 liter(s)**
- Trub loss **5 %**
- Size with trub loss **8.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **10.6 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **5.5 liter(s) / kg**
- Mash size **12.5 liter(s)**
- Total mash volume **14.8 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **12.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **78C**
- Sparge using **0.4 liter(s)** of **76C** water or to achieve **10.6 liter(s)** of wort

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2 kg (87.7%)   | 80 %  | 5   |
| Grain | Strzegom Karmel 150  | 0.1 kg (4.4%)  | 75 %  | 150 |
| Grain | Jęczmień palony      | 0.18 kg (7.9%) | 55 %  | 985 |

## Hops

| Use for   | Name    | Amount | Time   | Alpha acid |
|-----------|---------|--------|--------|------------|
| Boil      | Smaragd | 40 g   | 60 min | 3.9 %      |
| Whirlpool | Smaragd | 25 g   | 5 min  | 3.9 %      |

## Yeasts

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