

# #1 Black Hop Down

- Gravity **17.8 BLG**
- ABV ---
- IBU **93**
- SRM **40**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.3 liter(s)**
- Total mash volume **27 liter(s)**

## Steps

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

## Mash step by step

- Heat up **20.3 liter(s)** of strike water to **73.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield  | EBC  |
|-------|-----------------------------|----------------|--------|------|
| Grain | Weyermann - Pale Ale Malt   | 3.5 kg (51.9%) | 79 %   | 7    |
| Grain | Weyermann - Rye Malt        | 0.5 kg (7.4%)  | 81 %   | 8    |
| Grain | Special B Malt              | 0.25 kg (3.7%) | 65.2 % | 315  |
| Grain | Carafa II                   | 0.25 kg (3.7%) | 65 %   | 1000 |
| Grain | Weyermann - Chocolate Rye   | 0.25 kg (3.7%) | 65 %   | 700  |
| Grain | Weyermann - Chocolate Wheat | 0.5 kg (7.4%)  | 74 %   | 788  |
| Grain | Strzegom Monachijski typ II | 1 kg (14.8%)   | 79 %   | 22   |
| Grain | weyermann Carapils          | 0.5 kg (7.4%)  | 75 %   | 3    |

## Hops

| Use for | Name    | Amount | Time     | Alpha acid |
|---------|---------|--------|----------|------------|
| Boil    | magnum  | 40 g   | 60 min   | 13.5 %     |
| Boil    | Citra   | 30 g   | 30 min   | 13.5 %     |
| Boil    | Equinox | 50 g   | 5 min    | 13.9 %     |
| Dry Hop | Equinox | 50 g   | 7 day(s) | 13.9 %     |

## Yeasts

| <b>Name</b>  | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale         | Dry         | 11.5 g        | Fermentis         |