

# BLACK IPA/CDA v7 #101

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **59**
- SRM **29.8**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **20.6 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **80 min**
- Evaporation rate **14 %/h**
- Boil size **26.6 liter(s)**

## Mash information

- Mash efficiency **81.7 %**
- Liquor-to-grist ratio **3.45 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25.8 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **7 min**

## Mash step by step

- Heat up **20 liter(s)** of strike water to **73.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **7 min** at **76C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

## Fermentables

| Type  | Name                             | Amount         | Yield  | EBC  |
|-------|----------------------------------|----------------|--------|------|
| Grain | Mep©Ale                          | 4.2 kg (72.4%) | 82.1 % | 5.5  |
| Grain | Bestmalz - pszeniczny            | 0.4 kg (6.9%)  | 83 %   | 5    |
| Grain | Viking - monachijski II          | 0.5 kg (8.6%)  | 79 %   | 22   |
| Grain | Chateau - Cara gold              | 0.25 kg (4.3%) | 75 %   | 120  |
| Grain | Weyermann - Carafa II Special    | 0.25 kg (4.3%) | 65 %   | 1150 |
| Grain | Fawcett - czekoladowy pszeniczny | 0.2 kg (3.4%)  | 72.7 % | 1000 |

## Hops

| Use for             | Name       | Amount | Time     | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil                | Warrior    | 30 g   | 60 min   | 14.7 %     |
| Aroma (end of boil) | Simcoe     | 30 g   | 10 min   | 13.2 %     |
| Aroma (end of boil) | Citra      | 20 g   | 1 min    | 13.5 %     |
| Aroma (end of boil) | Cascade US | 30 g   | 1 min    | 7.1 %      |
| Dry Hop             | Simcoe     | 30 g   | 3 day(s) | 13.2 %     |

|         |            |      |          |        |
|---------|------------|------|----------|--------|
| Dry Hop | Citra      | 20 g | 3 day(s) | 13.5 % |
| Dry Hop | Cascade US | 50 g | 3 day(s) | 7.1 %  |

### Yeasts

| Name                        | Type | Form  | Amount | Laboratory       |
|-----------------------------|------|-------|--------|------------------|
| FM54 Gorączka kalifornijska | Ale  | Slant | 190 ml | Fermentum Mobile |

### Extras

| Type        | Name                  | Amount | Use for | Time  |
|-------------|-----------------------|--------|---------|-------|
| Water Agent | Gips                  | 2 g    | Mash    | ---   |
| Water Agent | kwas mlekowy 80% [ml] | 3.03 g | Mash    | ---   |
| Water Agent | chlorek wapnia [ml]   | 1.72 g | Mash    | ---   |
| Water Agent | węglan wapnia/kreda   | 7 g    | Mash    | ---   |
| Water Agent | sól epsom             | 1.5 g  | Mash    | ---   |
| Fining      | irish moss            | 3 g    | Boil    | 5 min |