

# Black IPA

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- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **78**
- SRM **30.9**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.3 liter(s)**
- Total mash volume **29.8 liter(s)**

## Steps

- Temp **66 C**, Time **75 min**
- Temp **75 C**, Time **15 min**

## Mash step by step

- Heat up **22.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **15 min** at **75C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount          | Yield | EBC  |
|-------|----------------------------|-----------------|-------|------|
| Grain | Strzegom Pilzniejszy       | 5.85 kg (78.5%) | 80 %  | 4    |
| Grain | Caramel/Crystal Malt - 10L | 0.5 kg (6.7%)   | 75 %  | 22   |
| Grain | Weyermann - Carared        | 0.25 kg (3.4%)  | 75 %  | 45   |
| Grain | Weyermann - Carapils       | 0.25 kg (3.4%)  | 78 %  | 4    |
| Grain | Weyermann - Carafa II      | 0.6 kg (8.1%)   | 70 %  | 1100 |

## Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Warrior    | 30 g   | 50 min | 15.1 %     |
| Boil    | Warrior    | 15 g   | 45 min | 15.1 %     |
| Boil    | Centennial | 15 g   | 30 min | 9.7 %      |
| Boil    | Cascade    | 15 g   | 30 min | 6 %        |
| Boil    | Centennial | 15 g   | 10 min | 9.7 %      |
| Boil    | Cascade    | 15 g   | 10 min | 6 %        |
| Boil    | Centennial | 10 g   | 5 min  | 9.7 %      |
| Boil    | Cascade    | 10 g   | 5 min  | 6 %        |

|                     |            |      |          |        |
|---------------------|------------|------|----------|--------|
| Aroma (end of boil) | Centennial | 10 g | 0 min    | 9.7 %  |
| Aroma (end of boil) | Cascade    | 10 g | 0 min    | 6 %    |
| Whirlpool           | Centennial | 10 g | 0 min    | 9.7 %  |
| Whirlpool           | Cascade    | 10 g | 0 min    | 6 %    |
| Whirlpool           | Citra      | 30 g | 0 min    | 13.8 % |
| Dry Hop             | Centennial | 30 g | 4 day(s) | 9.7 %  |
| Dry Hop             | Cascade    | 30 g | 4 day(s) | 6 %    |
| Dry Hop             | Citra      | 60 g | 4 day(s) | 13.8 % |

### Yeasts

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

### Extras

| Type   | Name        | Amount | Use for | Time   |
|--------|-------------|--------|---------|--------|
| Fining | Whirlfloc T | 1.25 g | Boil    | 15 min |