

## BLACK IPA/CDA #29

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- Gravity **16.4 BLG**
- ABV ---
- IBU **89**
- SRM **35.5**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **21.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.3 liter(s)**

### Mash information

- Mash efficiency **76.1 %**
- Liquor-to-grist ratio **3.3 liter(s) / kg**
- Mash size **21.4 liter(s)**
- Total mash volume **27.8 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **5 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **21.4 liter(s)** of strike water to **73C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **5 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **26.3 liter(s)** of wort

### Fermentables

| Type  | Name                          | Amount          | Yield  | EBC  |
|-------|-------------------------------|-----------------|--------|------|
| Grain | Bestmalz - pilzneński         | 4 kg (61.8%)    | 80.5 % | 4    |
| Grain | Bruntal - pilzneński          | 1.37 kg (21.2%) | 81 %   | 4    |
| Grain | Bruntal - pale ale            | 0.2 kg (3.1%)   | 79 %   | 6.5  |
| Grain | Weyermann - Carahell          | 0.25 kg (3.9%)  | 77 %   | 26   |
| Grain | Chateau - Biscuit Malt        | 0.2 kg (3.1%)   | 79 %   | 45   |
| Grain | Chateau - Crystal             | 0.1 kg (1.5%)   | 78 %   | 150  |
| Grain | Weyermann - Carafa II Special | 0.35 kg (5.4%)  | 65 %   | 1150 |

### Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | Centennial | 30 g   | 60 min | 8.5 %      |
| Boil                | Chinook    | 10 g   | 60 min | 12.4 %     |
| Boil                | Chinook    | 30 g   | 20 min | 11.2 %     |
| Boil                | Citra      | 20 g   | 20 min | 13.5 %     |
| Aroma (end of boil) | Cascade    | 11 g   | 7 min  | 5.9 %      |

|                     |                 |      |          |        |
|---------------------|-----------------|------|----------|--------|
| Aroma (end of boil) | Styrian Golding | 25 g | 7 min    | 3.9 %  |
| Aroma (end of boil) | Centennial      | 20 g | 7 min    | 8.5 %  |
| Aroma (end of boil) | Galaxy          | 10 g | 7 min    | 14.5 % |
| Aroma (end of boil) | Mosaic          | 15 g | 7 min    | 11.7 % |
| Dry Hop             | Citra           | 30 g | 4 day(s) | 12 %   |
| Dry Hop             | Citra           | 30 g | 4 day(s) | 13.5 % |
| Dry Hop             | Centennial      | 7 g  | 4 day(s) | 8.5 %  |
| Dry Hop             | Styrian Golding | 15 g | 4 day(s) | 3.9 %  |
| Dry Hop             | Mosaic          | 11 g | 4 day(s) | 11.7 % |
| Dry Hop             | Galaxy          | 6 g  | 4 day(s) | 14.5 % |

## Yeasts

| Name                 | Type | Form  | Amount | Laboratory |
|----------------------|------|-------|--------|------------|
| Danstar - Nottingham | Ale  | Slant | 230 ml | ---        |

## Extras

| Type        | Name             | Amount | Use for | Time   |
|-------------|------------------|--------|---------|--------|
| Fining      | irish moss       | 3 g    | Boil    | 7 min  |
| Water Agent | Gips             | 6 g    | Mash    | ---    |
| Other       | fosforan diamonu | 3 g    | Boil    | 30 min |

## Notes

- Carafa II special dodawana przed mash-outem  
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