

## CDA v2

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- Gravity **16.8 BLG**
- ABV ---
- IBU **68**
- SRM **45.2**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **15 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **17 %/h**
- Boil size **34 liter(s)**

### Mash information

- Mash efficiency **74 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24.3 liter(s)**
- Total mash volume **32.4 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **24.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.8 liter(s)** of **76C** water or to achieve **34 liter(s)** of wort

### Fermentables

| Type  | Name                   | Amount         | Yield  | EBC |
|-------|------------------------|----------------|--------|-----|
| Grain | Briess - Pale Ale Malt | 5.5 kg (67.9%) | 80 %   | 7   |
| Grain | Briess - Vienna Malt   | 0.5 kg (6.2%)  | 77.5 % | 7   |
| Grain | Pszeniczny             | 0.8 kg (9.9%)  | 85 %   | 4   |
| Grain | Briess - Carapils Malt | 0.5 kg (6.2%)  | 74 %   | 3   |
| Grain | Carafa II              | 0.5 kg (6.2%)  | 70 %   | 812 |
| Grain | Jęczmień palony        | 0.3 kg (3.7%)  | 55 %   | 985 |

### Hops

| Use for             | Name     | Amount | Time     | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil                | Simcoe   | 50 g   | 60 min   | 13.2 %     |
| Aroma (end of boil) | Chinook  | 15 g   | 20 min   | 12.4 %     |
| Aroma (end of boil) | Cascade  | 15 g   | 20 min   | 5.9 %      |
| Dry Hop             | Citra    | 30 g   | 6 day(s) | 12 %       |
| Dry Hop             | Palisade | 30 g   | 3 day(s) | 8.3 %      |
| Dry Hop             | Cascade  | 30 g   | 3 day(s) | 5.9 %      |

### Yeasts

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

## Notes

- HOP STAND - 30 min przy 75 stopniach  
CHINOOK - 15 gr  
CASCADE - 15 gr  
*Jul 18, 2016, 9:11 AM*