

## Black IPA Centennial

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **79**
- SRM **27.7**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **13.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

### Steps

- Temp **64 C**, Time **90 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **90 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **6.3 liter(s)** of **76C** water or to achieve **13.3 liter(s)** of wort

### Fermentables

| Type  | Name                            | Amount          | Yield | EBC  |
|-------|---------------------------------|-----------------|-------|------|
| Grain | Strzegom Pilzneński             | 3 kg (80%)      | 80 %  | 4    |
| Grain | Weyermann - Dehusked Carafa III | 0.25 kg (6.7%)  | 70 %  | 1024 |
| Grain | Abbey Castle                    | 0.125 kg (3.3%) | 80 %  | 45   |
| Grain | Carahell                        | 0.125 kg (3.3%) | 77 %  | 26   |
| Sugar | Brown Sugar, Light              | 0.25 kg (6.7%)  | 100 % | 16   |

### Hops

| Use for             | Name       | Amount | Time     | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil                | Centennial | 25 g   | 60 min   | 8.5 %      |
| Boil                | Centennial | 25 g   | 30 min   | 8.5 %      |
| Aroma (end of boil) | Centennial | 25 g   | 15 min   | 8.5 %      |
| Aroma (end of boil) | Centennial | 25 g   | 0 min    | 9.7 %      |
| Dry Hop             | Centennial | 50 g   | 4 day(s) | 9.7 %      |

### Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 500 ml | Fermentis  |