

## Black IPA v3

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **45**
- SRM **32.7**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13 liter(s)**
- Boil time **70 min**
- Evaporation rate **20 %/h**
- Boil size **16.4 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.25 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **15.7 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **73.1C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **8.1 liter(s)** of **76C** water or to achieve **16.4 liter(s)** of wort

### Fermentables

| Type  | Name                  | Amount         | Yield | EBC  |
|-------|-----------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński   | 2.7 kg (73%)   | 80 %  | 4    |
| Grain | Pszeniczny            | 0.5 kg (13.5%) | 85 %  | 4    |
| Grain | Carahell              | 0.25 kg (6.8%) | 77 %  | 26   |
| Grain | Simpsons - Black Malt | 0.25 kg (6.8%) | 70 %  | 1430 |

### Hops

| Use for             | Name                   | Amount | Time     | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil                | Chinook                | 10 g   | 60 min   | 12 %       |
| Boil                | Simcoe                 | 10 g   | 15 min   | 13.2 %     |
| Boil                | Columbus/Tomahawk/Zeus | 12 g   | 15 min   | 15.5 %     |
| Aroma (end of boil) | Simcoe                 | 10 g   | 0 min    | 13.2 %     |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 10 g   | 0 min    | 15.5 %     |
| Dry Hop             | Simcoe                 | 80 g   | 5 day(s) | 13.2 %     |

### Yeasts

| Name              | Type | Form  | Amount | Laboratory |
|-------------------|------|-------|--------|------------|
| WLP066 London fog | Ale  | Slant | 100 ml | ---        |

## Extras

| Type  | Name       | Amount | Use for  | Time |
|-------|------------|--------|----------|------|
| Other | Witamina C | 2 g    | Bottling | ---  |