

Black IPA

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **67**
- SRM **28.7**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

Steps

- Temp **64 C**, Time **75 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **19.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **75 min** at **64C**
- Keep mash **15 min** at **76C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------|----------------|--------|------|
| Grain | Słód pilzneński Malteurop | 5 kg (75.8%) | 80 % | 5 |
| Grain | Karmelowy Jasny 20-30EBC optima | 0.35 kg (5.3%) | 75.9 % | 25 |
| Grain | Słód karmelowy 30 Viking Malt | 0.25 kg (3.8%) | 75 % | 35 |
| Grain | Carafa Special typ II | 0.5 kg (7.6%) | 65 % | 1150 |
| Grain | BESTMALZ - Best Pilsen | 0.5 kg (7.6%) | 80.5 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | lunga | 35 g | 60 min | 12.8 % |
| Boil | Simcoe | 15 g | 20 min | 13.1 % |
| Boil | Centennial | 15 g | 20 min | 9.7 % |
| Boil | Simcoe | 15 g | 7 min | 13.1 % |
| Boil | Centennial | 15 g | 7 min | 9.7 % |
| Boil | Simcoe | 20 g | 1 min | 13.1 % |
| Boil | Centennial | 20 g | 1 min | 9.7 % |

| | | | | |
|---------|--------------------------|------|----------|------|
| Dry Hop | Amarillo, cascade, citra | 60 g | 4 day(s) | 11 % |
|---------|--------------------------|------|----------|------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|-------|--------|-------------|
| us-05 | Ale | Slant | 100 ml | po warce 21 |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------|--------|---------|--------|
| Fining | Whirlfloc T | 1 g | Boil | 10 min |