

BLACK IPA

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **59**
- SRM **34.2**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **70 min**
- Evaporation rate **24 %/h**
- Boil size **24.3 liter(s)**

Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.3 liter(s)**

Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **20 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **20 min** at **78C**
- Sparge using **10.8 liter(s)** of **76C** water or to achieve **24.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Weyermann - Pale Ale Malt | 4 kg (74.1%) | 85 % | 7 |
| Grain | Weyermann pszeniczny jasny | 0.8 kg (14.8%) | 80 % | 6 |
| Grain | Weyermann - Carafa III | 0.3 kg (5.6%) | 70 % | 1024 |
| Grain | Weyermann - Chocolate Wheat | 0.3 kg (5.6%) | 74 % | 788 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------|--------|----------|------------|
| Boil | Sorachi Ace | 30 g | 60 min | 13.3 % |
| Aroma (end of boil) | Książęcy | 15 g | 10 min | 7 % |
| Aroma (end of boil) | Sorachi Ace | 20 g | 10 min | 10 % |
| Whirlpool | Chinook | 25 g | 0 min | 13 % |
| Whirlpool | Simcoe | 25 g | 0 min | 13.2 % |
| Dry Hop | Chinook | 25 g | 3 day(s) | 13 % |
| Dry Hop | Simcoe | 25 g | 3 day(s) | 13.2 % |
| Dry Hop | Książęcy | 35 g | 3 day(s) | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|--------|------------|
| Danstar - Nottingham | Ale | Slant | 200 ml | Lallemand |