

Black IPA v2

- Gravity **16.8 BLG**
- ABV ---
- IBU **83**
- SRM **22.2**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **12.5 liter(s)**
- Trub loss **4 %**
- Size with trub loss **13.6 liter(s)**
- Boil time **70 min**
- Evaporation rate **20 %/h**
- Boil size **16.8 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **15.6 liter(s)**

Steps

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

Mash step by step

- Heat up **12.1 liter(s)** of strike water to **72.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **8.3 liter(s)** of **76C** water or to achieve **16.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|------|
| Grain | Strzegom Pilzneński | 3.2 kg (86.7%) | 80 % | 4 |
| Grain | Carafa III special | 0.15 kg (4.1%) | 70 % | 1300 |
| Grain | Biscuit Malt | 0.15 kg (4.1%) | 79 % | 45 |
| Grain | Caraamber | 0.05 kg (1.4%) | 70 % | 60 |
| Sugar | Cukier | 0.14 kg (3.8%) | 100 % | --- |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil | Warrior | 20 g | 60 min | 17 % |
| Boil | Palisade | 20 g | 30 min | 7.5 % |
| Boil | Palisade | 20 g | 15 min | 7.5 % |
| Aroma (end of boil) | Citra | 20 g | 0 min | 13.5 % |
| Dry Hop | Citra | 20 g | 7 day(s) | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 60 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|--------|---------|--------|
| Water Agent | gips piwowarski | 2 g | Mash | 60 min |