

Black IPA

- Gravity **17.3 BLG**
- ABV ---
- IBU **91**
- SRM **45.7**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **26.4 liter(s)**

Steps

- Temp **65 C**, Time **90 min**
- Temp **75.6 C**, Time **5 min**

Mash step by step

- Heat up **19.8 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **90 min** at **65C**
- Keep mash **5 min** at **75.6C**
- Sparge using **12.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 5.4 kg (81.8%) | 79 % | 6 |
| Grain | Strzegom Karmel 600 | 0.2 kg (3%) | 68 % | 601 |
| Grain | Strzegom Monachijski typ II | 0.5 kg (7.6%) | 79 % | 22 |
| Grain | Carafa II | 0.3 kg (4.5%) | 70 % | 812 |
| Grain | Strzegom pszenica prażona | 0.2 kg (3%) | 70 % | 1000 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 35 g | 90 min | 15.5 % |
| Boil | Columbus/Tomahawk/Zeus | 20 g | 40 min | 15.5 % |
| Boil | Cascade | 20 g | 5 min | 6 % |
| Boil | Centennial | 20 g | 3 min | 10.5 % |
| Dry Hop | Ahtanum | 25 g | 7 day(s) | 5 % |
| Dry Hop | Cascade | 20 g | 5 day(s) | 6 % |
| Dry Hop | Centennial | 10 g | 4 day(s) | 10.5 % |
| Dry Hop | Simcoe | 20 g | 3 day(s) | 13.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 21 g | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------------|--------|---------|--------|
| Fining | Irish Moss | 5 g | Boil | 10 min |