

ES Black IPA

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **70**
- SRM **26.3**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.2 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.2 liter(s)**
- Total mash volume **29.6 liter(s)**

Steps

- Temp **67 C**, Time **70 min**
- Temp **77 C**, Time **1 min**

Mash step by step

- Heat up **22.2 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **1 min** at **77C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **26.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 6 kg (81.1%) | 79 % | 6 |
| Grain | Strzegom Wiedeński | 1.1 kg (14.9%) | 79 % | 10 |
| Grain | Weyermann - Dehusked Carafa III | 0.3 kg (4.1%) | 70 % | 1400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|---------|--------|----------|------------|
| Boil | Warrior | 30 g | 60 min | 15.5 % |
| Boil | Chinook | 10 g | 45 min | 13 % |
| Boil | Citra | 10 g | 15 min | 12 % |
| Boil | Chinook | 10 g | 15 min | 13 % |
| Whirlpool | Cascade | 30 g | 0 min | 6 % |
| Whirlpool | Citra | 10 g | 0 min | 12 % |
| Dry Hop | Cascade | 30 g | 4 day(s) | 6 % |
| Dry Hop | Citra | 20 g | 4 day(s) | 12 % |
| Dry Hop | Chinook | 20 g | 4 day(s) | 13 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|--------------|-----|-------|--------|-----------|
| Safale US-05 | Ale | Slant | 100 ml | Fermentis |
|--------------|-----|-------|--------|-----------|