

Black IPA

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **67**
- SRM **22.3**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **19.4 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.5 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 **50 C**, Time **5 min**
- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **19.8 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **5 min** at **50C**
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **11.3 liter(s)** of **76C** water or to achieve **24.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 5 kg (75.8%) | 79 % | 6 |
| Grain | Strzegom Bursztynowy | 0.8 kg (12.1%) | 70 % | 49 |
| Grain | Słód Caramunich Typ II Weyermann | 0.4 kg (6.1%) | 73 % | 120 |
| Grain | Caraaroma | 0.15 kg (2.3%) | 78 % | 400 |
| Grain | Strzegom Czekoladowy ciemny | 0.15 kg (2.3%) | 68 % | 1200 |
| Grain | Płatki owsiane | 0.1 kg (1.5%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Mosaic | 20 g | 40 min | 11.8 % |
| Boil | Chinook | 20 g | 60 min | 14.8 % |
| Boil | Cascade | 20 g | 10 min | 7.1 % |
| Boil | Marynka | 20 g | 20 min | 10.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale | Slant | 50 ml | Fermentis |

Extras

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