

Black IPA

- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **73**
- SRM **13.5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.7 liter(s)**
- Total mash volume **34.2 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **25.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale | 6.5 kg (76%) | 79 % | 6 |
| Grain | Strzegom Czekoladowy jasny | 0.3 kg (3.5%) | 68 % | 400 |
| Grain | Karmelowy Pszeniczny Strzegom | 0.25 kg (2.9%) | 79 % | 130 |
| Grain | Strzegom Monachijski typ I | 1.5 kg (17.5%) | 79 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|--------|------------|
| Boil | Magnum | 35 g | 60 min | 13.5 % |
| Boil | Citra | 15 g | 45 min | 12 % |
| Boil | Magnum | 15 g | 30 min | 13.5 % |
| Boil | Cascade | 15 g | 45 min | 6 % |
| Boil | Marynka | 15 g | 20 min | 10 % |
| Boil | Lublin (Lubelski) | 15 g | 30 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale | Slant | 200 ml | Fermentis |