

Ciemny test

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **89**
- SRM **26.9**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **75 C**, Time **10 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **75C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|------|
| Grain | Strzegom Pale Ale | 5 kg (76.9%) | 79 % | 6 |
| Grain | Caraaroma | 0.5 kg (7.7%) | 78 % | 400 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (3.1%) | 68 % | 1200 |
| Grain | Pszeniczny | 0.5 kg (7.7%) | 85 % | 4 |
| Grain | Strzegom Karmel 300 | 0.3 kg (4.6%) | 70 % | 299 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |
| Boil | Summit | 50 g | 5 min | 17 % |
| Boil | Waimea | 30 g | 60 min | 17 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11 g | Safale |