

CyberHop

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **81**
- SRM **29.6**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.6 liter(s)**
- Total mash volume **15.4 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **74 C**, Time **10 min**

Mash step by step

- Heat up **11.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **74C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------|----------------|-------|-----|
| Grain | Pilzneński | 1 kg (26%) | 81 % | 4 |
| Grain | Pale ale | 1 kg (26%) | 81 % | 4 |
| Grain | Jęczmień palony | 0.35 kg (9.1%) | 55 % | 985 |
| Grain | Pszeniczny | 1 kg (26%) | 85 % | 4 |
| Grain | Monachijski | 0.5 kg (13%) | 80 % | 24 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------|--------|--------|------------|
| Boil | Citra | 10 g | 60 min | 12 % |
| Boil | Idaho (USA) | 10 g | 60 min | 12 % |
| Aroma (end of boil) | Citra | 20 g | 10 min | 12 % |
| Aroma (end of boil) | Idaho (USA) | 20 g | 10 min | 12 % |
| Aroma (end of boil) | Sabro | 20 g | 10 min | 14.8 % |
| Whirlpool | Citra | 45 g | 0 min | 12 % |
| Whirlpool | Sabro | 30 g | 0 min | 14.8 % |
| Whirlpool | Idaho (USA) | 20 g | 0 min | 12 % |