

16 black ipa

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **70**
- SRM **36.6**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

Steps

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

Mash step by step

- Heat up **17.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|---------------|-------|------|
| Grain | Strzegom Pale Ale | 3 kg (50.8%) | 79 % | 6 |
| Grain | Strzegom Monachijski typ II | 2 kg (33.9%) | 79 % | 22 |
| Grain | Strzegom Czekoladowy 1200 | 0.3 kg (5.1%) | 68 % | 1202 |
| Grain | Słód Caramunich Typ II Weyermann | 0.3 kg (5.1%) | 73 % | 120 |
| Grain | Strzegom Barwiący | 0.3 kg (5.1%) | 68 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|----------|------------|
| Boil | Simcoe | 30 g | 60 min | 13.2 % |
| Boil | Mosaic | 30 g | 30 min | 10.9 % |
| Aroma (end of boil) | Centennial | 20 g | 10 min | 8.9 % |
| Dry Hop | Amarillo | 70 g | 7 day(s) | 7.5 % |
| Dry Hop | Simcoe | 30 g | 7 day(s) | 13.2 % |