

#46 Triple Black IPA

- Gravity **22.9 BLG**
- ABV **10.4 %**
- IBU **76**
- SRM **76.8**
- 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 **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

Steps

- Temp **70 C**, Time **20 min**
- Temp **64 C**, Time **40 min**

Mash step by step

- Heat up **18.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **70C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|-----------------------------|---------------|-------|------|
| Grain | Strzegom Monachijski typ I | 3 kg (33%) | 79 % | 16 |
| Grain | Viking Pale Ale malt | 2 kg (22%) | 80 % | 5 |
| Liquid Extract | WES ekstrakt słodowy ciemny | 3 kg (33%) | 80 % | 700 |
| Grain | Karmelowy 200 EBC | 0.3 kg (3.3%) | 75 % | 200 |
| Grain | Strzegom pszenica prażona | 0.3 kg (3.3%) | 70 % | 1000 |
| Grain | Płatki żytnie | 0.5 kg (5.5%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 50 g | 60 min | 15.8 % |
| Boil | Simcoe | 20 g | 30 min | 13.3 % |
| Aroma (end of boil) | Simcoe | 30 g | 10 min | 13.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|-------|--------|------------|
| Us-5 | Ale | Slant | 200 ml | safale |