

Imperial black IPA

- Gravity **15.7 BLG**
- ABV **6.6 %**
- IBU **77**
- SRM **42.4**
- 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 **12 %/h**
- Boil size **30.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.9 liter(s)**
- Total mash volume **30.6 liter(s)**

Steps

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

Mash step by step

- Heat up **22.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt | 3 kg (39.2%) | 80 % | 5 |
| Grain | Pilzneński | 3 kg (39.2%) | 81 % | 4 |
| Grain | Cara Gold Castlemalting | 0.35 kg (4.6%) | 78 % | 120 |
| Grain | Strzegom Czekoladowy 400 | 0.5 kg (6.5%) | 68 % | 400 |
| Grain | Strzegom Czekoladowy ciemny | 0.3 kg (3.9%) | 68 % | 1200 |
| Grain | Carafa III | 0.5 kg (6.5%) | 70 % | 1034 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Magnum | 30 g | 60 min | 13.5 % |
| Boil | Columbus/Tomahawk/Zeus | 15 g | 45 min | 15.5 % |
| Boil | Columbus/Tomahawk/Zeus | 15 g | 20 min | 15.5 % |
| Boil | Summit | 30 g | 10 min | 17 % |
| Aroma (end of boil) | Summit | 30 g | 0 min | 17 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 30 g | 0 min | 15.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|-----------------|-----|-------|--------|----|
| FM53 Voss kveik | Ale | Slant | 250 ml | FM |
|-----------------|-----|-------|--------|----|

Notes

- black ipa a'la awaria zasilania 16blg
woda 3:1 sód
zasyp: pale ale 89,5%, pale chocolate 6%, carafa 2 special 1,5%, carafa 3 special 1,5%, black 1,5%
zacieranie: wsep 68, przerwa 66-65 1h
chmiel: columbus 15g 45min, simcoe 35g + columbus 35g 1min
na zimno: simcoe 50-70g, columbus 50-70g
drożdże us05
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