

Black IPA #5 - Szwagier, Sąsiad i Ja - Browar na Wyżynie

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **52**
- SRM **27.8**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **4 %**
- Size with trub loss **22.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.4 liter(s)**
- Total mash volume **23.6 liter(s)**

Steps

- Temp **66 C**, Time **45 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **18.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **1 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------------|----------------|--------|------|
| Grain | pale ale Castle Malting | 3 kg (57.1%) | 80 % | 9 |
| Grain | Arome Castle Malting | 1 kg (19%) | 78 % | 100 |
| Grain | pszeniczny Soufflet | 0.5 kg (9.5%) | 80 % | 5 |
| Grain | caramel sweet - Viking Malt | 0.25 kg (4.8%) | 75 % | 75 |
| Grain | Caffe Castle Malting | 0.25 kg (4.8%) | 75.5 % | 500 |
| Grain | pszeniczny czekoladowy Fawcett | 0.25 kg (4.8%) | 72 % | 1000 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------------------------------|--------|---------|------------|
| First Wort | lunga (Polishhops) - granulata | 20 g | 100 min | 10 % |
| Boil | Simcoe (Browamator Yakima Chief) | 20 g | 20 min | 14.1 % |
| Aroma (end of boil) | Simcoe (Browamator Yakima Chief) | 20 g | 5 min | 14.1 % |

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|---------------------|----------------------------------|------|----------|--------|
| Aroma (end of boil) | Zythos (Browamator Yakima Chief) | 20 g | 5 min | 9.2 % |
| Dry Hop | Chinook Hopzoil | 2 g | 1 day(s) | 1 % |
| Dry Hop | Simcoe (Browamator Yakima Chief) | 50 g | 3 day(s) | 14.1 % |
| Dry Hop | Zythos (Browamator Yakima Chief) | 70 g | 3 day(s) | 9.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------|------|-------|--------|------------|
| WLP007 - Dry English Ale Yeast | Ale | Slant | 200 ml | White Labs |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------------|--------|---------|--------|
| Water Agent | gips | 5 g | Mash | 60 min |
| Water Agent | chlerek wapnia | 1 g | Mash | 60 min |
| Water Agent | kreda | 1 g | Mash | 60 min |
| Flavor | ciemny sól na wygrzew | 250 g | Mash | 10 min |
| Fining | Mech irlandzki | 3 g | Boil | 15 min |
| Water Agent | chlerek cynku | 2 g | Boil | 0 min |

Notes

- Sól ciemny dodany na grzanie do mash-out.
<https://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/?id=6XBX3X7>
Ca+2 Mg+2 Na+ Cl- SO4-2 HCO
56.2 0.0 131.0 47.4 109.0 101.093
Mash pH *: 5.29
SO42-/Cl- ratio: 2.3 More Bitter
Mar 11, 2019, 3:03 PM