

Black IPA Wariacja na słodko

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **20**
- SRM **34.2**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **1 min**

Mash step by step

- Heat up **22.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|-----------------|-------|------|
| Grain | Viking Pale Ale malt | 3.22 kg (42.9%) | 80 % | 5 |
| Grain | Viking Pilsner malt | 1.84 kg (24.5%) | 82 % | 4 |
| Grain | Viking Wheat Malt | 1.38 kg (18.4%) | 83 % | 5 |
| Grain | Strzegom Karmel 600 | 0.46 kg (6.1%) | 68 % | 800 |
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| Grain | Jęczmień palony | 0.1 kg (1.3%) | 55 % | 1000 |
| Grain | Strzegom Barwiący | 0.05 kg (0.7%) | 68 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Aroma (end of boil) | Amarillo | 23 g | 15 min | 9.5 % |
| Aroma (end of boil) | Cascade | 43.7 g | 15 min | 6 % |
| Dry Hop | Amarillo | 50 g | 6 day(s) | 9.5 % |
| Dry Hop | Cascade | 50 g | 6 day(s) | 6 % |
| Dry Hop | Ekuanot | 20 g | 6 day(s) | 14 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------|------|------|--------|-----------------|
| Mangrove Jack's M12 Voss Kveik | Ale | Dry | 11 g | Mangrove Jack's |

Extras

| Type | Name | Amount | Use for | Time |
|--------|-----------------|--------|-----------|----------|
| Spice | Curacao | 20 g | Secondary | 6 day(s) |
| Other | Pulpa z mango | 800 g | Secondary | 6 day(s) |
| Flavor | Trawa cytrynowa | 40 g | Secondary | 6 day(s) |