

Czarna pantera

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **60**
- SRM **27.4**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

Steps

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

Mash step by step

- Heat up **17.4 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------|----------------|-------|------|
| Grain | Słód Pilzński Malteurop | 4.5 kg (77.6%) | 80 % | 4 |
| Grain | Słód pszeniczny Bestmalz | 0.5 kg (8.6%) | 82 % | 5 |
| Grain | Słód Wiedeński Strzegom | 0.4 kg (6.9%) | --- % | 10 |
| Grain | Słód Czekoladowy Strzegom | 0.4 kg (6.9%) | --- % | 1200 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------|--------|----------|------------|
| Boil | Bravo | 40 g | 60 min | 14 % |
| Aroma (end of boil) | Citra | 30 g | 1 min | 12 % |
| Aroma (end of boil) | Mosaic | 30 g | 1 min | 10 % |
| Dry Hop | Citra | 30 g | 4 day(s) | 12 % |
| Dry Hop | Mosaic | 30 g | 4 day(s) | 10 % |
| Dry Hop | Bravo | 30 g | 4 day(s) | 14 % |

Yeasts

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

| | | | | |
|--|-----|-------|--------|-----------------|
| Mangrove Jack's M42 New World Strong Ale | Ale | Slant | 150 ml | Mangrove Jack's |
|--|-----|-------|--------|-----------------|

Extras

| Type | Name | Amount | Use for | Time |
|-------|------------|--------|----------|------|
| Other | Witamina C | 4 g | Bottling | --- |

Notes

- Na przyszłość trzeba dać więcej słodu ciemnego lub trochę (100-200 g) palonego jęczmienia, bo piwo wyszło trochę za jasne.
Chmiel Bravo dodany na zimno przez pomyłkę, miało być 30 Mosaica i 40 g Citry.
Jan 30, 2021, 1:15 PM