

Czorny Woron

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **55**
- SRM **27.9**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.3 liter(s)**
- Boil time **65 min**
- Evaporation rate **5 %/h**
- Boil size **15.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.5 liter(s) / kg**
- Mash size **19.8 liter(s)**
- Total mash volume **24.2 liter(s)**

Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19.8 liter(s)** of strike water to **71.1C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **0.3 liter(s)** of **76C** water or to achieve **15.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|---------------|-------|------|
| Grain | Pilzneński | 3 kg (68.2%) | 81 % | 4 |
| Grain | Briess - Pale Ale Malt | 1 kg (22.7%) | 80 % | 7 |
| Grain | Abbey Malt Weyermann | 0.1 kg (2.3%) | 75 % | 45 |
| Grain | Carafa III | 0.3 kg (6.8%) | 70 % | 1034 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|----------|------------|
| Boil | Chinook | 20 g | 60 min | 13 % |
| Boil | Citra | 15 g | 10 min | 12 % |
| Boil | Mosaic | 15 g | 10 min | 10 % |
| Dry Hop | Citra | 20 g | 3 day(s) | 12 % |
| Dry Hop | Mosaic | 20 g | 3 day(s) | 10 % |
| Dry Hop | Amarillo | 20 g | 3 day(s) | 9.5 % |

Yeasts

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

| | | | | |
|-----------------------------------|-----|-------|--------|-----------------|
| Mangrove Jack's M44 US West Coast | Ale | Slant | 100 ml | Mangrove Jack's |
|-----------------------------------|-----|-------|--------|-----------------|

Extras

| Type | Name | Amount | Use for | Time |
|-------|--|--------|-----------|----------|
| Spice | Skórka z 2 pomarańczy 2 cytrym i 1 limonki | 10 g | Secondary | 4 day(s) |

Notes

- Zest leżakowany w wódce jedna dobę
Nov 26, 2018, 1:51 PM