

BLACK IPA/CDA v10 #130

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **66**
- SRM **33.1**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **17.4 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.6 liter(s)**
- Boil time **80 min**
- Evaporation rate **24.2 %/h**
- Boil size **25 liter(s)**

Mash information

- Mash efficiency **77.5 %**
- Liquor-to-grist ratio **2.85 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20.3 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **7 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **72.9C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------------------|-----------------|--------|------|
| Grain | Pale Ale - viking | 3.95 kg (74.9%) | 80 % | 5.5 |
| Grain | Viking - pszeniczny | 0.3 kg (5.7%) | 83 % | 5 |
| Grain | Viking - monachijski II | 0.392 kg (7.4%) | 79 % | 22 |
| Grain | Chateau - Cara gold | 0.2 kg (3.8%) | 78 % | 120 |
| Grain | Weyermann - czekoladowy pszeniczny | 0.18 kg (3.4%) | 72.7 % | 1000 |
| Grain | Weyermann - Carafa II Special | 0.162 kg (3.1%) | 65 % | 1150 |
| Grain | Weyermann - Carafa III Special | 0.088 kg (1.7%) | 65 % | 1400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | Warrior | 17 g | 60 min | 14.7 % |
| Aroma (end of boil) | Columbus | 30 g | 10 min | 15.8 % |
| Aroma (end of boil) | Simcoe | 25 g | 5 min | 12.9 % |
| Aroma (end of boil) | Centennial | 30 g | 5 min | 10.5 % |

| | | | | |
|---------------------|-----------------|--------|----------|--------|
| Aroma (end of boil) | Michigan Copper | 7.54 g | 1 min | 14.5 % |
| Aroma (end of boil) | Moutere | 23 g | 1 min | 15.9 % |
| Dry Hop | Simcoe | 55 g | 2 day(s) | 12.9 % |
| Dry Hop | Centennial | 30 g | 2 day(s) | 10.5 % |
| Dry Hop | Columbus | 20 g | 2 day(s) | 15.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|--------|--------|------------------|
| FM52 Amerykański Sen | Ale | Liquid | 150 ml | Fermentum Mobile |
| gęstwa 30-dniowa | | | | |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------------------------|--------|----------|--------|
| Water Agent | Gips | 2 g | Mash | --- |
| Water Agent | kwask mlekowy 80% [ml] | 3.11 g | Mash | --- |
| Water Agent | chlorek wapnia [ml] | 0 g | Mash | --- |
| Water Agent | węglan wapnia/kreda | 6 g | Mash | --- |
| Water Agent | sól epsom | 1.5 g | Mash | --- |
| Fining | irish moss | 3 g | Boil | 10 min |
| Water Agent | kwask askorbinowy | 3.6 g | Bottling | --- |