

BLACK IPA/CDA v11 #138

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **56**
- SRM **34.6**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **18.9 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.2 liter(s)**
- Boil time **80 min**
- Evaporation rate **20.5 %/h**
- Boil size **26 liter(s)**

Mash information

- Mash efficiency **86 %**
- Liquor-to-grist ratio **2.83 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 **73C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|-----------------|--------|------|
| Grain | pilzneński - viking | 0.35 kg (6.6%) | 80 % | 3.6 |
| Grain | pale ale - viking | 3.6 kg (67.9%) | 80 % | 5.5 |
| Grain | pszeniczny - bestmalz | 0.3 kg (5.7%) | 83 % | 5 |
| Grain | monachijski II - viking | 0.4 kg (7.5%) | 79 % | 22 |
| Grain | cara gold - chateau | 0.066 kg (1.2%) | 78 % | 120 |
| Grain | karmelowy300 - viking | 0.134 kg (2.5%) | 73 % | 300 |
| Grain | czekoladowy pszeniczny - fawcett | 0.2 kg (3.8%) | 72.7 % | 1000 |
| Grain | carafa III special - weyermann | 0.25 kg (4.7%) | 65 % | 1400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil | Magnum | 21 g | 60 min | 11.5 % |
| Aroma (end of boil) | Columbus | 30 g | 10 min | 10.7 % |
| Aroma (end of boil) | Simcoe | 25 g | 5 min | 12.9 % |

| | | | | |
|---------------------|----------|------|----------|--------|
| Aroma (end of boil) | Moutere | 30 g | 5 min | 15.9 % |
| Aroma (end of boil) | Amarillo | 30 g | 1 min | 9.9 % |
| Dry Hop | Simcoe | 35 g | 2 day(s) | 12.9 % |
| Dry Hop | Amarillo | 30 g | 2 day(s) | 9.9 % |
| Dry Hop | Moutere | 30 g | 2 day(s) | 15.9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|--------|------------------|
| FM52 Amerykański Sen | Ale | Slant | 175 ml | Fermentum Mobile |
| gęstwa 37-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 | --- |