

BLACK IPA/CDA v9 #121 TBD

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **62**
- SRM **31**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **18.3 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.6 liter(s)**
- Boil time **80 min**
- Evaporation rate **19.3 %/h**
- Boil size **25 liter(s)**

Mash information

- Mash efficiency **84.6 %**
- 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 (74.8%)	80 %	5.5
Grain	Viking - pszeniczny	0.3 kg (5.7%)	83 %	5
Grain	Viking - monachijski II	0.4 kg (7.6%)	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	0.25 kg (4.7%)	65 %	1150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	19 g	60 min	14.7 %
Aroma (end of boil)	Columbus	30 g	10 min	12.6 %
Aroma (end of boil)	Simcoe	30 g	5 min	14.5 %
Aroma (end of boil)	Denali	20 g	5 min	14.2 %
Aroma (end of boil)	Cascade US	50 g	1 min	7.1 %
Dry Hop	Simcoe	60 g	2 day(s)	14.5 %

Dry Hop	Mosaic	30 g	2 day(s)	12.5 %
Dry Hop	Columbus	20 g	2 day(s)	15.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP090 - San Diego Super Yeast	Ale	Slant	150 ml	White Labs

Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	2 g	Mash	---
Water Agent	kwas 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	kwas askorbinowy	3.6 g	Bottling	---