

## BLACK IPA/CDA v6 #87

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **62**
- SRM **31**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **20.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **26.3 liter(s)**

### Mash information

- Mash efficiency **79 %**
- Liquor-to-grist ratio **3.17 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **26.3 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **75 C**, Time **7 min**

### Mash step by step

- Heat up **20 liter(s)** of strike water to **73.2C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **7 min** at **75C**
- Sparge using **12.6 liter(s)** of **76C** water or to achieve **26.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking - pilzneński	1 kg (15.9%)	80 %	4
Grain	Mep©Ale	4.5 kg (71.5%)	82.1 %	5.5
Grain	Weyermann - Abbey	0.04 kg (0.6%)	75 %	45
Grain	Chateau - Cara gold	0.29 kg (4.6%)	75 %	120
Grain	Chateau - Crystal	0.016 kg (0.3%)	78 %	150
Grain	Weyermann - Carafa II Special	0.45 kg (7.1%)	65 %	1150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	19.5 g	60 min	14.7 %
Boil	Columbus	25 g	15 min	12.4 %
Aroma (end of boil)	Simcoe	25 g	10 min	13.2 %
Aroma (end of boil)	Mosaic	25 g	5 min	10.4 %
Aroma (end of boil)	Sybilla (szyszka)	30 g	5 min	6.5 %
120 gr mokrej szyszki mrożonej, ekwiwalent 30 gr suchej				
Dry Hop	Cascade US	30 g	3 day(s)	6.9 %

Dry Hop	Mosaic	30 g	3 day(s)	10.4 %
Dry Hop	Simcoe	30 g	3 day(s)	13.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM54 Gorączka kalifornijska	Ale	Slant	150 ml	Fermentum Mobile
2-dniowa gęstwa				

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	2 g	Mash	---
Water Agent	kwas mlekowy 80% [ml]	3.03 g	Mash	---
Water Agent	chlerek wapnia [ml]	1.72 g	Mash	---
Water Agent	węglan wapnia/kreda	7 g	Mash	---
Water Agent	sól epsom	1.5 g	Mash	---
Fining	irish moss	3 g	Boil	5 min