

# BLACK IPA/CDA v4 #65

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **70**
- SRM **31.9**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.5 liter(s)**
- Boil time **85 min**
- Evaporation rate **16 %/h**
- Boil size **28.3 liter(s)**

## Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3.09 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **26.5 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **77 C**, Time **5 min**

## Mash step by step

- Heat up **20 liter(s)** of strike water to **73.4C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking - pilzneński	5.5 kg (85%)	80 %	4
Grain	Viking - monachijski 2	0.2 kg (3.1%)	78 %	22
Grain	Chateau - Abbey	0.185 kg (2.9%)	75 %	45
Grain	Chateau - Crystal	0.15 kg (2.3%)	78 %	160
Grain	Fawcett - Pszeniczny Czekoladowy	0.096 kg (1.5%)	73 %	1000
Grain	Weyermann - Carafa III Special	0.34 kg (5.3%)	65 %	1400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Topaz	26.2 g	60 min	15.5 %
Aroma (end of boil)	Columbus	25 g	15 min	12.5 %
Aroma (end of boil)	Chinook PL	40 g	10 min	8.6 %
Aroma (end of boil)	Cascade PL	50 g	5 min	5.5 %
Aroma (end of boil)	Perle (szyszka)	20 g	5 min	7 %
Aroma (end of boil)	Sybilla (szyszka)	10 g	5 min	6 %

Dry Hop	Cascade PL	100 g	3 day(s)	5.2 %
Dry Hop	Chinook PL	50 g	3 day(s)	8.6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	160 ml	Fermentum Mobile

### Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	2 g	Mash	---
Water Agent	kwas mlekowy 80% [ml]	1.45 g	Mash	---
Water Agent	chlorek wapnia [ml]	0 g	Mash	---
Water Agent	węglan wapnia/kreda	9 g	Mash	---
Water Agent	sól epsom	3 g	Mash	---
Fining	irish moss	3 g	Boil	5 min