

# Black IPA

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **55**
- SRM **31.3**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **17.8 liter(s)**

## Steps

- Temp **67 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **10 min**

## Mash step by step

- Heat up **13.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **5.4 liter(s)** of **76C** water or to achieve **15.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Mep@Ale	3.3 kg (83.5%)	80 %	7
Grain	Mep@Wheat	0.3 kg (7.6%)	84.7 %	4
Grain	Weyermann Carafa III Specjal	0.25 kg (6.3%)	70 %	1300
Grain	Viking Monach II	0.1 kg (2.5%)	79 %	20

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga Polish Hops	15 g	60 min	10 %
Whirlpool	Cashmere	50 g	15 min	8.8 %
Whirlpool	Simcoe	20 g	15 min	13.2 %
Dry Hop	Cashmere	50 g	2 day(s)	8.8 %
Dry Hop	Simcoe	30 g	2 day(s)	13.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Oslo	Ale	Slant	3 ml	Kveik

## Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	4.5 g	Mash	80 min
Water Agent	Chlorek wapnia CaCl <sub>2</sub>	0.3 g	Mash	80 min

## Notes

- 3CLTPK0  
10l RO + 8,1 kran  
Ca - 96,3  
Mg - 7,3  
Na - 49,5  
Cl - 51,5  
SO<sub>4</sub> - 153,9  
rez.alk. 18,2  
*Sep 8, 2020, 11:36 AM*