

# Black IPA

- Gravity **16.7 BLG**
- ABV ---
- IBU **76**
- SRM **39.1**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **25 %**
- Size with trub loss **25 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **29.4 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **27.6 liter(s)**

## Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **20.7 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **29.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3 kg (43.5%)	85 %	7
Grain	Weyermann - Carafa III	0.25 kg (3.6%)	70 %	1034
Grain	Weyermann - Chocolate Wheat	0.25 kg (3.6%)	74 %	788
Grain	Weyermann - Carapils Malt	0.7 kg (10.1%)	74 %	3
Grain	Weyermann - Caramunich Malt	0.7 kg (10.1%)	71.7 %	110
Grain	Weyermann - Wiedeński	2 kg (29%)	79 %	10

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	30 g	75 min	15.5 %
Boil	Citra	15 g	60 min	13.5 %
Boil	Citra	40 g	10 min	13.5 %
Aroma (end of boil)	Amarillo	30 g	0 min	9.5 %

Aroma (end of boil)	Citra	30 g	0 min	13.5 %
Dry Hop	Citra	45 g	4 day(s)	13.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Northwest Ale	Ale	Liquid	125 ml	Wyeast Labs

## Notes

- Słody palone do 72 stopni

Dokupić Safale - 05 US (na wszelki!)  
*Dec 14, 2015, 9:23 PM*