

## Black IPA - po mojemu

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- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **33**
- SRM **26.6**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **19.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5 kg (76.9%)	82 %	4
Grain	Strzegom Karmel 150	0.5 kg (7.7%)	75 %	150
Grain	Carafa II	0.5 kg (7.7%)	70 %	812
Grain	Biscuit Malt	0.5 kg (7.7%)	79 %	45

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Centennial	15 g	60 min	10.5 %
Boil	Cascade	25 g	45 min	6 %
Boil	Willamette	25 g	15 min	5 %
Boil	Cascade	85 g	0 min	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Lallemand