

## #B012 BLACK IPA

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- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **47**
- SRM **38.9**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **64 C**, Time **50 min**
- Temp **70 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **20 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (68%)	80 %	5
Grain	Strzegom Wiedeński	1 kg (13.6%)	79 %	10
Grain	Carafa II	0.5 kg (6.8%)	70 %	812
Grain	Barwiący	0.5 kg (6.8%)	55 %	985
Sugar	Brown Sugar, Dark	0.35 kg (4.8%)	100 %	99

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	10 %
Boil	Marynka	20 g	30 min	10 %
Boil	Marynka	20 g	15 min	10 %
Whirlpool	Citra	20 g	0 min	12 %