

## Black ipa

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- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **63**
- SRM **5.4**
- Style **Black IPA**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10 liter(s)**
- Total mash volume **13.4 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.9 kg (86.6%)	80 %	5
Grain	Viking Vienna Malt	0.15 kg (4.5%)	79 %	7
Grain	Viking Munich Malt	0.15 kg (4.5%)	78 %	18
Grain	płatki jęczmienne	0.15 kg (4.5%)	60 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	50 g	10 min	13.2 %
Boil	Mosaic	25 g	10 min	10 %
Dry Hop	Ekuanot	15 g	3 day(s)	14 %
Dry Hop	Centennial	12 g	3 day(s)	10.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Dry	10 g	Mangrove Jack's