

## Black ipa

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- Gravity **12.6 BLG**
- ABV ---
- IBU **66**
- SRM ---

### 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 **7.5 liter(s)**
- Total mash volume **10 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale ale	2 kg (80%)	--- %	---
Grain	Karmelowy	0.2 kg (8%)	--- %	---
Grain	Specjalny	0.3 kg (12%)	--- %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinnok	15 g	50 min	11.5 %
Boil	Citra	15 g	15 min	13.5 %
Boil	Cascade	15 g	10 min	7.1 %