

## Black IPA Single HOP Amarillo ver. 2

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **60**
- SRM **34.4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 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)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	5 kg (71.4%)	81 %	4
Grain	Strzegom Monachijski typ I	0.45 kg (6.4%)	79 %	16
Grain	Strzegom Monachijski typ II	0.45 kg (6.4%)	79 %	22
Grain	Carafa III	0.45 kg (6.4%)	70 %	1034
Grain	Płatki owsiane	0.45 kg (6.4%)	85 %	3
Grain	Fawcett - Pszeniczny Czekoladowy	0.2 kg (2.9%)	73 %	1001

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Amarillo	15 g	60 min	8.9 %
Boil	Amarillo	45 g	30 min	8.9 %
Boil	Amarillo	45 g	15 min	8.9 %
Whirlpool	Amarillo	45 g	0 min	8.9 %
Dry Hop	Amarillo	45 g	4 day(s)	8.9 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	1000 ml	Fermentum Mobile
starter 1000 ml dekantowany				