

Black IPA Single HOP Amarillo ver. 1 10L

- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **60**
- SRM **36.8**
- Style **American 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 **10.5 liter(s)**
- Total mash volume **14 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.25 kg (64.7%)	81 %	4
Grain	Strzegom Monachijski typ I	0.23 kg (6.5%)	79 %	16
Grain	Żytni	0.23 kg (6.5%)	85 %	8
Grain	Karmelowy żytni Strzegom	0.23 kg (6.5%)	75 %	150
Grain	Carafa III	0.23 kg (6.5%)	70 %	1034
Grain	Płatki owsiane	0.23 kg (6.5%)	85 %	3
Grain	Fawcett - Pszeniczny Czekoladowy	0.1 kg (2.9%)	73 %	1001

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Amarillo	7.5 g	60 min	8.9 %
Boil	Amarillo	22.5 g	30 min	8.9 %
Boil	Amarillo	22.5 g	15 min	8.9 %
Whirlpool	Amarillo	22.5 g	0 min	8.9 %
Dry Hop	Amarillo	22.5 g	4 day(s)	8.9 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Liquid	500 ml	Fermentum Mobile
starter 1000 ml dekantowany				