

# Palony olej

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **49**
- SRM **41.2**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **10.6 liter(s)**
- Total mash volume **14.4 liter(s)**

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	1.5 kg (34.1%)	85 %	8
Grain	Briess - Pale Ale Malt	1.5 kg (34.1%)	80 %	7
Adjunct	Żytni	0.5 kg (11.4%)	5 %	1300
Grain	Pszeniczny	0.3 kg (6.8%)	85 %	4
Grain	Karmelowy Jasny 30EBC	0.2 kg (4.5%)	75 %	30
Sugar	glokoza	0.1 kg (2.3%)	100 %	---
Grain	Melanoiden Malt	0.3 kg (6.8%)	80 %	39

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	30 g	60 min	11 %
Boil	Sybilla	30 g	5 min	3.5 %
Whirlpool	lunga	15 g	0 min	11 %
Dry Hop	Amarillo	15 g	5 day(s)	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	5 g	---
us 05	Ale	Slant	50 ml	---

## Notes

- 16:30 - START - 62\*
  - 16:45 - 64\*
  - 17:00 - 68\*
  - 17:15 - 70\*
  - 17:40 - STOP
- Nov 12, 2017, 5:08 PM