

# Black Polish Apa

---

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **34**
- SRM **41.6**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **28.5 liter(s)**

## Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Mep©Pilsner	4.5 kg (84.9%)	80 %	4
Grain	Palone ziarno jęczmienia	0.2 kg (3.8%)	65 %	1150
Grain	Słód Carafa® Special typ III	0.2 kg (3.8%)	65 %	1400
Grain	Słód Czekoladowy	0.4 kg (7.5%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	100 g	15 min	3 %
Boil	Sybilla	50 g	15 min	7.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
fermentis US-05	Ale	Slant	100 ml	---