

# Polish Black IPA

- Gravity **16.4 BLG**
- ABV **6.9 %**
- IBU **70**
- SRM **32.5**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **24.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.4 liter(s)**
- Total mash volume **30.1 liter(s)**

## Steps

- Temp **65 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **23.4 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **5 min** at **76C**
- Sparge using **8.1 liter(s)** of **76C** water or to achieve **24.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	4 kg (59.7%)	82 %	4
Grain	Viking Munich Malt	2 kg (29.9%)	78 %	18
Grain	Strzegom Karmel 300	0.3 kg (4.5%)	70 %	300
Grain	Weyermann - Carafa III	0.2 kg (3%)	70 %	1024
Grain	Strzegom Barwiący	0.2 kg (3%)	68 %	1300

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	40 g	60 min	10.3 %
Boil	Cascade PL	10 g	20 min	5.5 %
Boil	Chinook PL	10 g	20 min	8.6 %
Boil	Lubelski	5 g	20 min	3 %
Boil	Cascade PL	20 g	5 min	5.5 %
Boil	Chinook PL	30 g	5 min	8.6 %
Boil	Lubelski	30 g	5 min	3 %
Aroma (end of boil)	Chinook PL	40 g	5 min	8.6 %
Aroma (end of boil)	Lubelski	40 g	5 min	3 %

Whirlpool	Cascade PL	20 g	0 min	5.5 %
Whirlpool	Chinook PL	40 g	0 min	8.6 %
Whirlpool	Lubelski	40 g	0 min	3 %
Dry Hop	Cascade PL	30 g	4 day(s)	5.5 %
Dry Hop	Chinook PL	40 g	4 day(s)	8.6 %
Dry Hop	lunga	30 g	4 day(s)	10.3 %
Dry Hop	Lubelski	40 g	4 day(s)	3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	---

## Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	5 g	Boil	15 min

## Notes

- Whirlpool, gdy temperatura będzie poniżej 80 stopni. Zatrzymanie chłodzenia przez 20 minut.  
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