

# Polish BIPA

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **97**
- SRM **25.6**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **28.4 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **21.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **28.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	5 kg (70.4%)	82 %	4
Grain	Weyermann - Carapils	0.5 kg (7%)	78 %	4
Grain	Carafa II	0.6 kg (8.5%)	70 %	812
Grain	Platki owsiane	1 kg (14.1%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	50 g	60 min	11 %
Aroma (end of boil)	lunga	50 g	5 min	11 %
Whirlpool	Zombie	100 g	15 min	9 %
Whirlpool	Vermelho	100 g	15 min	9.1 %
Dry Hop	Zombie	100 g	3 day(s)	9 %
Dry Hop	Vermelho	100 g	3 day(s)	9.1 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Slant	300 ml	---

Ebbedgarden	Ale	Slant	500 ml	---
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### Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips	10 g	Mash	60 min
Water Agent	Chlorek Wapnia	2 g	Mash	60 min
Water Agent	Kwas mlekowy	1 g	Boil	60 min
Water Agent	Whirflock	4 g	Boil	5 min

### Notes

- Kwas mlekowy do gotowania, bez korekty pH zacieru. Carafa 2 dopiero na Mash Out.  
Profil wody Chmielowy: Ca-83.6/Mg-4/Na-4/Cl-35.4/SO4-149.8/HCO3-41/  
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