

# Black IPA #5 - Szwagier, Sąsiad i Ja - Browar na Wyżynie

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **52**
- SRM **27.8**
- Style **Black IPA**

## Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **4 %**
- Size with trub loss **22.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **18 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.4 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **66 C**, Time **45 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **18.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **1 min** at **78C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale Castle Malting	3 kg (57.1%)	80 %	9
Grain	Arome Castle Malting	1 kg (19%)	78 %	100
Grain	pszeniczny Soufflet	0.5 kg (9.5%)	80 %	5
Grain	caramel sweet - Viking Malt	0.25 kg (4.8%)	75 %	75
Grain	Caffe Castle Malting	0.25 kg (4.8%)	75.5 %	500
Grain	pszeniczny czekoladowy Fawcett	0.25 kg (4.8%)	72 %	1000

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	lunga (Polishhops) - granulata	20 g	100 min	10 %
Boil	Simcoe (Browamator Yakima Chief)	20 g	20 min	14.1 %
Aroma (end of boil)	Simcoe (Browamator Yakima Chief)	20 g	5 min	14.1 %

Aroma (end of boil)	Zythos (Browamator Yakima Chief)	20 g	5 min	9.2 %
Dry Hop	Chinook Hopzoil	2 g	1 day(s)	1 %
Dry Hop	Simcoe (Browamator Yakima Chief)	50 g	3 day(s)	14.1 %
Dry Hop	Zythos (Browamator Yakima Chief)	70 g	3 day(s)	9.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
WLP007 - Dry English Ale Yeast	Ale	Slant	200 ml	White Labs

## Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	5 g	Mash	60 min
Water Agent	chlerek wapnia	1 g	Mash	60 min
Water Agent	kreda	1 g	Mash	60 min
Flavor	ciemny sód na wygrzew	250 g	Mash	10 min
Fining	Mech irlandzki	3 g	Boil	15 min
Water Agent	chlerek cynku	2 g	Boil	0 min

## Notes

- Sód ciemny dodany na grzanie do mash-out.  
<https://www.brewersfriend.com/mash-chemistry-and-brewing-water-calculator/?id=6XBX3X7>  
Ca+2 Mg+2 Na+ Cl- SO4-2 HCO  
56.2 0.0 131.0 47.4 109.0 101.093  
Mash pH \*: 5.29  
SO42-/Cl- ratio: 2.3 More Bitter  
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