

Czarna żytnia IPA

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **63**
- SRM **29.8**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **20.1 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **14.7 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **10.3 liter(s)** of **76C** water or to achieve **20.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3 kg (61.2%)	85 %	7
Grain	Żytni	1 kg (20.4%)	85 %	8
Grain	Weyermann pszeniczny jasny	0.5 kg (10.2%)	80 %	6
Grain	Carafa III	0.4 kg (8.2%)	70 %	1034

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	10.9 %
Boil	Magnum	15 g	50 min	10.9 %
Aroma (end of boil)	Simcoe	20 g	15 min	12.4 %
Whirlpool	Simcoe	20 g	0 min	12.4 %
Dry Hop	Simcoe	50 g	5 day(s)	12.4 %
Dry Hop	Amarillo	30 g	5 day(s)	7.7 %
Dry Hop	Citra	30 g	2 day(s)	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM54 Gorączka kalifornijska	Ale	Slant	100 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Fining	whirlflock	1.25 g	Boil	10 min