

Gastly

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **63**
- SRM **31.1**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.4 liter(s)**
- Total mash volume **27.2 liter(s)**

Steps

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

Mash step by step

- Heat up **20.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Malt (2 Row) Bel	6 kg (88.2%)	80 %	6
Grain	Czekoladowy	0.2 kg (2.9%)	60 %	1000
Grain	Carafa II	0.2 kg (2.9%)	70 %	1150
Grain	prażony	0.2 kg (2.9%)	1 %	1000
Grain	Caramel/Crystal Malt - 10L	0.2 kg (2.9%)	75 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	30 min	9 %
Boil	Simcoe	20 g	30 min	12.9 %
Boil	Citra	20 g	30 min	11.6 %
Boil	Simcoe	15 g	10 min	13.2 %
Boil	Simcoe	10 g	5 min	13.2 %
Boil	Citra	10 g	5 min	12 %
Aroma (end of boil)	Simcoe	15 g	0 min	13.2 %
Dry Hop	Simcoe	30 g	5 day(s)	13.2 %
Dry Hop	Citra	30 g	5 day(s)	12 %
Dry Hop	Mosaic	28 g	5 day(s)	2.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Dry	10 g	---

Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	5 g	Mash	---