

Czarne cytrusy

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **63**
- SRM **30.1**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **24.5 liter(s)**

Steps

- Temp **63 C**, Time **60 min**
- Temp **80 C**, Time **5 min**

Mash step by step

- Heat up **17.5 liter(s)** of strike water to **71.6C**
- Add grains
- Keep mash **60 min** at **63C**
- Keep mash **5 min** at **80C**
- Sparge using **22.5 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (66.7%)	80 %	5
Grain	Pszeniczny	1 kg (13.3%)	85 %	4
Grain	Strzegom Karmel 150	0.5 kg (6.7%)	75 %	150
Grain	Strzegom Barwiący	0.5 kg (6.7%)	68 %	1300
Sugar	Corn Sugar (Dextrose)	0.5 kg (6.7%)	100 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	15.5 %
Whirlpool	Citra	40 g	5 min	12 %
Dry Hop	Citra	60 g	5 day(s)	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	10 g	Fermentis