

Ciorna IPA

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **53**
- SRM **31.1**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **22.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **11.8 liter(s)**
- Total mash volume **17.7 liter(s)**

Steps

- Temp **64 C**, Time **35 min**
- Temp **73 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **11.8 liter(s)** of strike water to **75C**
- Add grains
- Keep mash **35 min** at **64C**
- Keep mash **40 min** at **73C**
- Keep mash **10 min** at **78C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **22.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (42.4%)	80 %	5
Grain	Słód monachijski	2 kg (33.9%)	80 %	14
Grain	Grodziski pszeniczny wędzony dębem	0.5 kg (8.5%)	80 %	3
Grain	Jęczmień palony	0.2 kg (3.4%)	55 %	1150
Wrzucony pod koniec warzenia				
Grain	Czekoladowy	0.2 kg (3.4%)	60 %	900
Wrzucony po koniec warzenia				
Grain	Karmelowy Jasny	0.25 kg (4.2%)	75 %	160
Grain	Karmelowy Crystal	0.25 kg (4.2%)	75 %	160

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tomahawk	30 g	60 min	15.5 %
Aroma (end of boil)	Citra	15 g	1 min	12 %
Aroma (end of boil)	Simcoe	25 g	1 min	13.2 %
Dry Hop	Citra	15 g	7 day(s)	12 %

Dry Hop	Amarillo	15 g	7 day(s)	9.5 %
---------	----------	------	----------	-------

Yeasts

Name	Type	Form	Amount	Laboratory
FM54 Gorączka kalifornijska	Ale	Liquid	30 ml	Fermentum Mobile