

# Warrior IPA

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **48**
- SRM ---
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	pale ale	4.5 kg (75%)	80 %	---
Grain	pilsen	1.5 kg (25%)	80 %	---

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	25 g	60 min	17 %
Aroma (end of boil)	Chinook	3 g	10 min	12.8 %
Aroma (end of boil)	Equinox	3 g	10 min	12.4 %
Aroma (end of boil)	Warrior	5 g	5 min	17 %
Aroma (end of boil)	Equinox	5 g	5 min	12.8 %
Aroma (end of boil)	Chinook	2 g	1 min	12.8 %
Aroma (end of boil)	Equinox	2 g	1 min	12.4 %
Dry Hop	Chinook	25 g	4 day(s)	12.8 %
Dry Hop	Cascade	30 g	4 day(s)	6.1 %
Dry Hop	Equinox	20 g	4 day(s)	12.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Safale US-05	Ale	Slant	30 ml	Fermentis
--------------	-----	-------	-------	-----------

## Notes

- wyszło ok. 12 BLG jednak.  
*Jun 28, 2017, 12:50 PM*