

# IPA v15 #117

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- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **55**
- SRM **5.9**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **19.4 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **80 min**
- Evaporation rate **21.8 %/h**
- Boil size **27.2 liter(s)**

## Mash information

- Mash efficiency **85.1 %**
- Liquor-to-grist ratio **3.88 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25.1 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **7 min**

## Mash step by step

- Heat up **20 liter(s)** of strike water to **71.9C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **77C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **27.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Mep©Ale	3.2 kg (62.1%)	82.2 %	4.8
Grain	Viking - pszeniczny	0.3 kg (5.8%)	81 %	5
Grain	Viking - wiedeński	0.85 kg (16.5%)	79 %	8.6
Grain	Viking - monachijski I	0.75 kg (14.6%)	79 %	16
Grain	Chateau - cara gold	0.05 kg (1%)	78 %	120

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	11.5 %
Boil	Columbus	30 g	15 min	15.7 %
Aroma (end of boil)	Amarillo	50 g	5 min	8.5 %
Aroma (end of boil)	Falconners Flight	30 g	1 min	10.3 %
Aroma (end of boil)	Galaxy	30 g	1 min	14.5 %
Dry Hop	Amarillo	50 g	2 day(s)	9.5 %
Dry Hop	Falconners Flight	40 g	2 day(s)	10.3 %
Dry Hop	Galaxy	20 g	2 day(s)	14.5 %

## Yeasts

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

Name	Type	Form	Amount	Laboratory
WLP090 - San Diego Super Yeast	Ale	Slant	460 ml	White Labs
49-dniowa gęstwa				

### Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	4 g	Mash	---
Water Agent	kwas mlekowy 80% [ml]	5.72 g	Mash	---
Water Agent	chlorek wapnia [ml]	0 g	Mash	---
Water Agent	epsom	0.5 g	Mash	---
Water Agent	mech irlandzki	4 g	Boil	15 min
Water Agent	kwask askorbinowy	4 g	Bottling	---