

## IPA v14 #113

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- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **47**
- SRM **5.7**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20.9 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **80 min**
- Evaporation rate **14 %/h**
- Boil size **27.1 liter(s)**

### Mash information

- Mash efficiency **81.8 %**
- Liquor-to-grist ratio **3.48 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25.7 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **7 min**

### Mash step by step

- Heat up **20 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **7 min** at **76C**
- Sparge using **12.8 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Mep©Ale	4.5 kg (78.4%)	82.2 %	4.8
Grain	płatki owsiane	0.4 kg (7%)	83 %	3
Grain	Bruntal - pszeniczny	0.5 kg (8.7%)	81 %	5
Grain	Viking - cookie	0.34 kg (5.9%)	72 %	50

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	11.5 %
Boil	Columbus	20 g	15 min	15.7 %
Aroma (end of boil)	Centennial	39 g	5 min	9.5 %
Aroma (end of boil)	Azacca	40 g	1 min	11.8 %
Dry Hop	Azacca	60 g	2 day(s)	11.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP090 - San Diego Super Yeast	Ale	Slant	160 ml	White Labs

## Extras

Type	Name	Amount	Use for	Time
Water Agent	gips	4 g	Mash	---
Water Agent	kwask mlekowy 80% [ml]	5.83 g	Mash	---
Water Agent	chlerek wapnia [ml]	0 g	Mash	---
Water Agent	epsom	0.5 g	Mash	---
Water Agent	mech irlandzki	3 g	Boil	5 min
Water Agent	kwask askorbinowy	4 g	Bottling	---