

## ipa #89

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **73**
- SRM **4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.7 liter(s)**
- Total mash volume **15.6 liter(s)**

### Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **11.7 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **11.2 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Bohemian Pilsner Malt	3 kg (76.9%)	81 %	4
Grain	Weyermann - Vienna Malt	0.5 kg (12.8%)	81 %	8
Grain	Pszeniczny	0.4 kg (10.3%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	20 g	60 min	11.3 %
Boil	Cascade	25 g	60 min	7 %
Whirlpool	Simcoe	25 g	15 min	13.2 %
Whirlpool	Waimea	10 g	10 min	17 %
Dry Hop	Mosaic yakimachef	25 g	3 day(s)	10 %
Dry Hop	Nelson Sauvign	25 g	3 day(s)	11 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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WLP060 - American Ale Yeast Blend	Ale	Slant	150 ml	White Labs
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### Extras

Type	Name	Amount	Use for	Time
Fining	whirflock	1 g	Boil	5 min