

- Gravity **17.7 BLG**
- ABV ---
- IBU **107**
- SRM **7.8**
- Style **Imperial IPA**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **14.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.2 liter(s)**
- Total mash volume **13.6 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**

### Mash step by step

- Heat up **10.2 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Sparge using **7.6 liter(s)** of **76C** water or to achieve **14.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.2 kg (94.1%)	85 %	7
Grain	Carahell	0.1 kg (2.9%)	77 %	26
Grain	Weyermann - Carapils	0.1 kg (2.9%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	10 g	45 min	15.5 %
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	14.6 %
Boil	Simcoe	15 g	30 min	13 %
Boil	Centennial	14 g	0 min	10.5 %
Boil	Simcoe	35 g	0 min	13 %
Dry Hop	Columbus/Tomahawk/Zeus	15 g	12 day(s)	15.5 %
Dry Hop	Centennial	15 g	12 day(s)	10.5 %
Dry Hop	Simcoe	15 g	12 day(s)	13 %
Dry Hop	Columbus/Tomahawk/Zeus	5 g	5 day(s)	15.5 %
Dry Hop	Centennial	5 g	5 day(s)	10.5 %
Dry Hop	Simcoe	5 g	5 day(s)	13 %

### Yeasts

Name	Type	Form	Amount	Laboratory
WLP001 - California Ale Yeast	Ale	Liquid	120 ml	White Labs