

## 90 PLUS

- Gravity **20.7 BLG**
- ABV **9.2 %**
- IBU **93**
- SRM **7.5**
- Style **Imperial IPA**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **16.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.4 liter(s)**
- Total mash volume **21.8 liter(s)**

### Steps

- Temp **63 C**, Time **60 min**

### Mash step by step

- Heat up **16.4 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **60 min** at **63C**
- Sparge using **5.6 liter(s)** of **76C** water or to achieve **16.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	5 kg (91.7%)	81 %	6
Grain	Weyermann - Carapils	0.25 kg (4.6%)	78 %	4
Grain	Caraamber	0.2 kg (3.7%)	75 %	59

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	20 g	60 min	15.5 %
Boil	Simcoe	20 g	15 min	13.2 %
Boil	Centennial	20 g	15 min	10.5 %
Boil	Centennial	15 g	10 min	10.5 %
Boil	Columbus/Tomahawk/Zeus	15 g	10 min	15.5 %
Boil	Simcoe	15 g	5 min	13.2 %
Boil	Columbus/Tomahawk/Zeus	10 g	5 min	15.5 %
Boil	Centennial	10 g	0 min	10.5 %
Boil	Centennial	15 g	0 min	10.5 %
Dry Hop	Centennial	15 g	---	10.5 %
Dry Hop	Simcoe	15 g	---	13.2 %
Dry Hop	Columbus/Tomahawk/Zeus	15 g	---	15.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	20 g	Fermentis

## Notes

- Gęstwa drożdżowa.  
*Jan 3, 2022, 8:02 PM*